

## List of Non Major Elective Courses (NMEC) Offered

## UG PROGRAMMES

| Title of the Course                       | Course Code | Semester | Department                                |
|---|-------------|----------|---|
| History of India upto A.D.1858            | 20UHIN31    | III      | History(EM)                               |
| இந்திய வரலாறு கி.பி. 1858 வரை             | 20UHIN31    | III      | History (TM)                              |
| Indian National Movement (A.D 1885-1947)  | 20UHIN41    | IV       | History(EM)                               |
| இந்திய தேசிய இயக்கம் (கி.பி. 1885 – 1947) | 20UHIN41    | IV       | History(TM)                               |
| English for Professions I                 | 20UENN31    | III      | English                                   |
| English for Professions II                | 20UENN41    | IV       |   |
| இக்கால நீதி இலக்கியம்                     | 20UTAN31    | III      | Tamil                                     |
| உரைநடை இலக்கியம்                          | 20UTAN41    | IV       |   |
| Basic Hindi – I                           | 20UBHN31    | III      | Hindi                                     |
| Basic Hindi – II                          | 20UBHN41    | IV       |   |
| Practical Banking                         | 20UCON31    | III      | Commerce                                  |
| Basic Accounting Principles               | 20UCON41    | IV       |   |
| Business Management                       | 20UBAN31    | III      | Business                                  |
| Entrepreneurship                          | 20UBAN41    | IV       | Administration                            |
| Quantitative Aptitude                     | 20UMTN31    | III      | Mathematics                               |
| Statistics and Operation Research         | 20UMTN41    | IV       |   |
| Physics in Everyday life                  | 20UPHN31    | III      | Physics                                   |
| Fundamentals of Electronics               | 20UPHN41    | IV       |   |
| Industrial Chemistry                      | 20UCHN31    | III      | Chemistry                                 |
| Drugs and Natural Products                | 20UCHN41    | IV       |   |
| Applied Zoology                           | 20UZYN31    | III      | Zoology                                   |
| Animal Science                            | 20UZYN41    | IV       |   |
| Basic Food Science                        | 20UHSN31    | III      | Home Science –<br>Nutrition and Dietetics |
| Basic Nutrition and Dietetics             | 20UHSN41    | IV       |   |
| Women and Health                          | 20UBCN31    | III      | Biochemistry                              |
| Lifestyle associated disorders            | 20UBCN41    | IV       |   |
| Medical Lab Technology                    | 20UMBN31    | III      | Microbiology                              |
| Applied Microbiology                      | 20UMBN41    | IV       |   |
| Infectious Diseases                       | 20UBON31    | III      | Biotechnology                             |
| Organic Farming                           | 20UBON41    | IV       |   |

|   |          |     |                            |
|---|----------|-----|----------------------------|
| Basics of Fashion                               | 20UCFN31 | III | Costume Design And Fashion |
| Interior Designing                              | 20UCFN41 | IV  |                            |
| Introduction to Computers and Office Automation | 20UCSN31 | III | Computer Science           |
| Introduction to Internet and HTML 5             | 20UCSN41 | IV  |                            |
| MS Office                                       | 20UITN31 | III | Information Technology     |
| Introduction to HTML                            | 20UITN41 | IV  |                            |
| Fundamentals of Computers                       | 20UCAN31 | III | Computer Applications      |
| Web Design with HTML                            | 20UCAN41 | IV  |                            |
| Horticulture – I                                | 20UBYN31 | III | Botany                     |
| Horticulture – II                               | 20UBYN41 | IV  |                            |
| மருத்துவ தாவரவியல் - I                          | 20UBYN32 | III |                            |
| மருத்துவ தாவரவியல் - II                         | 20UBYN42 | IV  |                            |
| Library and Information Science – I             | 20ULSN31 | III | Library Science            |
| Library and Information Science - II            | 20ULSN41 | IV  |                            |
| அடிப்படைத் தமிழ் - எழுத்தறிதல்                  | 20UBTN31 | III | Tamil                      |
| அடிப்படைத் தமிழ் - மொழித்திறனறிதல்              | 20UBTN41 | IV  |                            |

**List of Non Major Elective Courses (NMEC)****(2023-2024 onwards)****UG PROGRAMMES**

| <b>Title of the Course</b>                | <b>Course Code</b> | <b>Semester</b> | <b>Department</b>                            |
|---|--------------------|-----------------|--|
| History of India upto A.D.1858            | 20UHN31            | III             | History(EM)                                  |
| இந்திய வரலாறு கி.பி. 1858 வரை             | 20UHN31            | III             | History (TM)                                 |
| Indian National Movement (A.D 1885-1947)  | 20UHN41            | IV              | History(EM)                                  |
| இந்திய தேசிய இயக்கம் (கி.பி. 1885 – 1947) | 20UHN41            | IV              | History(TM)                                  |
| English for Professions I                 | 20UENN31           | III             | English                                      |
| English for Professions II                | 20UENN41           | IV              |  |
| இக்கால நீதி இலக்கியம்                     | 20UTAN31           | III             | Tamil  |
| உரைநடை இலக்கியம்                          | 20UTAN41           | IV              |  |
| Basic Hindi – I                           | 20UBHN31           | III             | Hindi  |
| Basic Hindi – II                          | 20UBHN41           | IV              |  |
| Fundamental Hindi - I                     | 22UHND31           | III             |  |
| Fundamental Hindi - II                    | 22UHND41           | IV              |  |
| Practical Banking                         | 20UCON31           | III             | Commerce                                     |
| Basic Accounting Principles               | 20UCON41           | IV              |  |
| Financial Literacy I                      | 22UCON31           | III             |  |
| Financial Literacy II                     | 22UCON41           | IV              |  |
| Self-Employment And Start-Up Business     | 22UCCN31           | III             | Commerce CA                                  |
| Fundamentals Of Marketing                 | 22UCCN41           | IV              |  |
| Women Protection Laws                     | 22UCPN31           | III             | Commerce<br>Professional<br>Accounting       |
| Basic Labour Laws                         | 22UCPN41           | IV              |  |
| Business Management                       | 20UBAN31           | III             | Business<br>Administration                   |
| Entrepreneurship                          | 20UBAN41           | IV              |  |
| Quantitative Aptitude I                   | 22UMTN31           | III             | Mathematics                                  |
| Basic Statistics                          | 22UMTN32           |                 |  |
| Quantitative Aptitude II                  | 22UMTN41           |                 |  |
| Operations Research                       | 22UMTN42           |                 |  |
| Physics in Everyday life -I               | 22UPHN31           | III             | Physics                                      |
| Physics in Everyday life -II              | 22UPHN41           | IV              |  |
| Industrial Chemistry                      | 20UCHN31           | III             | Chemistry                                    |
| Drugs and Natural Products                | 20UCHN41           | IV              |  |
| Applied Zoology                           | 20UZYN31           | III             | Zoology                                      |
| Animal Science                            | 20UZYN41N          | IV              |  |
| Basic Food Science                        | 20UHNS31           | III             | Home Science –<br>Nutrition and<br>Dietetics |
| Basic Nutrition and Dietetics             | 20UHNS41           | IV              |  |
| Women and Health                          | 20UBCN31           | III             | Biochemistry                                 |

|  |           |     |                               |
|--|-----------|-----|-------------------------------|
| Lifestyle Associated Disorders                     | 20UBCN41  | IV  |                               |
| Medical Lab Technology                             | 20UMBN31  | III | Microbiology                  |
| Applied Microbiology                               | 20UMBN41  | IV  |                               |
| Infectious Diseases                                | 20UBON31  | III | Biotechnology                 |
| Organic Farming                                    | 20UBON41  | IV  |                               |
| Basics of Fashion                                  | 20UCFN31  | III | Costume Design<br>And Fashion |
| Interior Designing                                 | 20UCFN41  | IV  |                               |
| Introduction to Computers and Office<br>Automation | 20UCSN31  | III | Computer Science              |
| Introduction to Internet and HTML 5                | 20UCSN41  | IV  |                               |
| MS Office  | 20UITN31  | III | Information<br>Technology     |
| Introduction to HTML                               | 20UITN41N | IV  |                               |
| Fundamentals of Computers                          | 20UCAN31  | III | Computer<br>Applications      |
| Web Design with HTML                               | 20UCAN41  | IV  |                               |
| Horticulture – I                                   | 20UBYN31  | III | Botany                        |
| Horticulture – II                                  | 20UBYN41  | IV  |                               |
| மருத்துவ தாவரவியல் - I                             | 20UBYN32  | III |                               |
| மருத்துவ தாவரவியல் - II                            | 20UBYN42  | IV  |                               |
| Library and Information Science – I                | 20ULSN31  | III | Library Science               |
| Library and Information Science - II               | 20ULSN41  | IV  |                               |
| Cadet Corps for Career Development I               | 22UNCN31  | III | National Cadet<br>Corps       |
| Cadet Corps for Career Development II              | 22UNCN41  | IV  |                               |

மேல்நிலைக் கல்வி வரை தமிழை முதன்மைப் பாடமாக எடுத்துப் படிக்காத மாணவிகள் கீழ்க்கண்ட  
பாடங்களைக் கட்டாயம் படிக்க வேண்டும்

1. அடிப்படைத் தமிழ் - எழுத்தறிதல் - 20UBTN31
2. அடிப்படைத் தமிழ் - மொழித்திறனறிதல் - 20UBTN41



# V.V.VANNIAPERUMAL COLLEGE FOR WOMEN

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Re-accredited with 'A' Grade (3<sup>rd</sup> Cycle) by NAAC

**VIRUDHUNAGAR - 626 001**

## B.A History (2020 -21 onwards)

|                                 |   |                |                |
|---------------------------------|---|----------------|----------------|
| Semester III                    | <b>HISTORY OF INDIA UPTO<br/>A.D.1858</b> | Hours/Week: 2  |                |
| Non Major Elective<br>Course -1 |   | Credits : 2    |                |
| Course Code<br><b>20UHIN31</b>  |   | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of course, the student will be able to

CO1: identify the remarkable events in the history of Ancient and Medieval India. [K1]

CO2: exhibit knowledge on the fusion of culture and religions in constructing a secular state. [K1]

CO3: outline the condition of India during the period under study. [K2]

CO 4: indicate the features and legacy of Indian and Alien administration. [K2]

CO 5: apply the acquired knowledge of the glorious past for creating an incredible India. [K3]

### UNIT I

Indus Valley Civilization: Features – Early Vedic Civilization: Four Vedas – Society – Principles of Jainism and Buddhism. (6 Hours)

### UNIT II

Mauryas: Kalinga War – Kushans: Gandhara Art – Guptas: Golden Age – Ajanta Painting – Foreign account: Hieun Tsang – Fa - Hien. - Establishment of Muslim Rule: First and Second Battle of Tarain. (7 Hours)

### UNIT III

Delhi Sultanate: Qutb-ud-din Aibak – Ala-ud-din Khilji: Market Regulations and Military Reforms – Muhammad bin Tughlaq: Internal Policy – Mughals: Babur - First Battle of Panipat – Akbar: Mansabdari System – Din-i-Ilahi – Shajahan: Taj Mahal – Red Fort. (7 Hours)

**UNIT IV**

East India Company: Battle of Plassey – Battle of Buxar – Subsidiary Alliance – English Education – Doctrine of Lapse. (5 Hours)

**UNIT V**

1857 Mutiny: causes – Course – Results - Queen's Proclamation, 1858. (5 Hours)

**TEXT BOOKS**

1. Anlet Sobithabai, (2005), *History of India up to AD 712*, Marthandam, Sharon Publication.
2. Anlet Sobithabai, (2005), *History of India (AD 712 to 1761)*, Marthandam, Sharon Publication.
3. Anlet Sobithabai, (2005), *History of India (AD 1761 to 1947)*, Marthandam, Sharon Publication.

**REFERENCE BOOKS**

1. Four Authors (1992) *A Simple History of India from Earliest Times 1000AD*, New Delhi: SBD Publications and Distributors.
2. Raychoudhary, S.C., (2002), *History of India (From Earliest times to AD 1526)*, Delhi: Surject Publications.
3. Sathianathaier, R., (1964), *A Political and Cultural history of India, Volume- I Ancient India*, Madras: S. Viswanathan Printers & Publishers Pvt. Ltd.,
4. Sathianathaier, R. (1964), *A Political and Cultural History of India, Volume-II Medieval India*, Madras: S. Viswanathan Printers & Publishers Pvt. Ltd.,
5. Sathianathaier, R. (1964), *A Political and Cultural history of India, Volume- III Modern India*, Madras: S. Viswanathan Printers & Publishers Pvt. Ltd.,

| Course Code<br>20UHIN31 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | H   | M   | -   | -   | L   | M   | H   |
| CO2                     | H   | M   | -   | -   | L   | M   | H   |
| CO3                     | H   | M   | -   | -   | L   | M   | H   |
| CO4                     | H   | M   | -   | -   | L   | M   | H   |
| CO5                     | H   | M   | -   | L   | L   | M   | H   |

Dr.M.Geetha

Dr.M.Geetha  
Head of the Department

Dr.S.Lalitha  
Course Designer



## வே.வ.வன்னியப்பெருமாள் பெண்கள் கல்லூரி

(விருதுநகர் இந்து நாடார்களுக்குப் பாத்தியப்பட்டது)  
மதுரை காமராசர் பல்கலைக்கழகத்தின் கீழ் தன்னாட்சி உரிமம் பெற்றது  
(தேசிய தரமதிப்பீட்டுக் குழுவின் மறுமதிப்பீட்டில் (மூன்றாம் சுற்று) 'A' அந்தஸ்து பெற்றது)  
விருதுநகர் - 626001

(2020 -21 )

|                              |          |    |    |
|------------------------------|----------|----|----|
| Non Major Elective Course -1 | 20UHIN31 | 40 | 60 |
|------------------------------|----------|----|----|

இந்த பாடத்திட்டம் முடிந்த பிறகு, மாணவர்கள்

OC1: பண்டைய மற்றும் இடைக்கால இந்திய வரலாற்றில் குறிப்பிடத்தக்க

நிகழ்வுகளை அடையாளம் காணும் புலன் பெற்றிருப்பர்.[K1]

OC2: ஒரு மதச்சார்பற்ற அரசைக் கட்டமைப்பதில் கலாச்சாரம் மற்றும்

மதங்களின் இணைவு பற்றிய அறிவை வெளிப்படுத்துவர். [K1]

OC3: வரையறுக்கப்பட்ட கற்றல் காலத்தின் கீழ் இந்தியாவின் நிலையை கோடிட்டுக்காட்டும் புலமை பெற்றிருப்பர். [K2]

OC4 : இந்திய மற்றும் அயல் நாட்டவர் நிர்வாகத்தின் தன்மைகள் மற்றும்

கொடைகள் குறித்து அறிந்திருப்பர். [K2]

OC5 : தன்னிகரற்ற இந்தியாவை உருவாக்குவதற்கு புகழ் பெற்ற கடந்த

காலத்தைப் பற்றிய அறிவைப் பயன்படுத்துவர். [K3]

I

(6 )

II

(7 )

III







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**VIRUDHUNAGAR - 626 001**

### B.A History

(2020 -21 onwards)

|                                |   |                |                |
|--------------------------------|---|----------------|----------------|
| Semester: IV                   | <b>INDIAN NATIONAL MOVEMENT<br/>(A.D 1885 – 1947)</b> | Hours/Week: 2  |                |
| Non Major<br>Elective Course-2 |   | Credits : 2    |                |
| Course Code<br><b>20UHIN41</b> |   | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of course, the student will be able to

CO1: recognise the National Movement of Pre-Gandhian Era. [K1]

CO2: identify the various movements of Gandhian Era. [K1]

CO3: summarise the vital role of Freedom Fighters in the National Movement. [K2]

CO4: paraphrase the missions and plans of British towards Independence. [K2]

CO5: develop their knowledge on the importance of Nationalism and Patriotism. [K3]

### UNIT I

Indian National Congress: Birth of Indian National Congress – Moderates – Extremists – Swadeshi Movement- Surat split 1907. (6 Hours)

### UNIT II

Gandhian Era: Non-Cooperation Movement – Civil Disobedience Movement- Quit India movement. (6 Hours)

### UNIT III

Towards Independence: Wavell plan- Cripps Cabinet mission – Mountbatten plan - Partition of India - Indian Independence Act 1947. (6 Hours)

### UNIT IV

Leaders of the Indian National Movement:Gopala Krishna Gokhale – BalaGangadharaTilak  
– Annie Besant – Subash Chandra Bose. (6 Hours)

### UNIT V

Freedom Movement in Tamil Nadu: V.O Chidambaram Pillai – Bharathi –Vanchinathan -  
Satyamurthi– Rajaji– Kamaraj. (6 Hours)

### TEXT BOOKS

1. AnletSobithabai (2005). *History of India (AD1761 to 1947)*, Marthandam, Sharon Publication.
2. Vengatesan.G. (1985). *History of Freedom Struggle in India*, Coimbatore: Rainbow Publications.

### REFERENCE BOOKS

1. Agarwal,R.C.(1984). *Constitutional Development of India and National Movement (History of Freedom Movement)*, New Delhi: S.Chand& Company Ltd.
2. Bipinchandra, (1999). *India's Struggle for Independence (A.D.1857-1947)*, New Delhi: Penguin Books.
3. Gupta, D.C. (1976). *Indian National Movement &Constitutional Development*, New Delhi: Vikas Publishing House Pvt.Ltd.
4. Mahajan. V.D., (1975). *Leaders of the Nationalist Movement*, New Delhi: Sterling Publishers Pvt. Ltd.
5. வெங்கடேசன்.க.ரு. (2009). *இந்தியவிடுதலைபோராட்டவரலாறு*, ராஜபாளையம்:சந்திரபிரபு.பி.எஸ்.வி.சி. பப்ளிகேஷன்ஸ்.

| Course Code<br>20UHIN41 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | H   | M   | -   | -   | L   | M   | H   |
| CO2                     | H   | M   | -   | -   | L   | M   | H   |
| CO3                     | H   | M   | -   | -   | L   | M   | H   |
| CO4                     | H   | M   | -   | -   | L   | M   | H   |
| CO5                     | H   | M   | -   | -   | L   | M   | H   |







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**VIRUDHUNAGAR - 626 001**

### B.A. English

(2020 -2021 onwards)

|                                |                                  |               |          |
|--------------------------------|----------------------------------|---------------|----------|
| Semester III                   | <b>ENGLISH FOR PROFESSIONS I</b> | Hours/Week: 2 |          |
| Non Major Elective             |                                  | Credits: 2    |          |
| Course Code<br><b>20UENN31</b> |                                  | Internal      | External |
|                                |                                  | 40            | 60       |

### COURSE OUTCOMES

On completion of the course, the students will be able to

CO1: define the essential skills required to perform various professional activities through language and literature. [K1]

CO2: explain the correct use of grammar and various forms of written communication and the non-verbal communication skills. [K2]

CO3: identify the different methods of correspondence for effective communication. [K2]

CO4: apply their knowledge of English grammar and soft skills to enhance their career prospects. [K3]

CO5: demonstrate their skill in technical writing and advanced forms of written communication. [K3]

### UNIT I SOFT SKILLS

Interview Skills

Emotional Intelligence Skills

(From English and *Soft Skills* - p.( 69-84, 23-32)

(6 Hours)

## **UNIT II GRAMMAR USAGE**

Articles

Prepositions

Common Errors

(6 Hours)

## **UNIT III WRITTEN COMMUNICATION SKILLS**

Business Correspondence: Sales Letter – Adjustment Letter – Enquiry Letter -  
Quotation Letter

(From *Developing Communication Skills* p( 180-189)

(3 Hours)

## **UNIT IV ADVANCED FORMS OF COMMUNICATION**

Resume

E-Mail

Notices

(From *Soft Skillsp.* 80-81, *Technical Communication* p. 381-396, *Communication Skillsp.*242-252)

(7 Hours)

## **UNIT V TECHNICAL WRITING**

Writing Instructions

Publicity Brochures

(From *Technical Communication*p.468-481, *Written English for You* p.189-191)

(8 Hours)

## **ASSIGNMENT**

PPT Presentation- 10 marks

## **TEXT BOOKS**

Dhanavel S.P. (2010). *English and Soft Skills*. Hyderabad: Orient Blackswan.

Lakshminarayanan, K.R. (2003). *Effective Technical English*. Chennai:Scitec Publications.

Mohan, Krishna, Meera Banerji. (1994). *Developing Communication Skills*. Chennai: Macmillan Private.

Pillai, Radhakrishna., Rajeevan, K. et.al. (1992). *Written English for You*. Chennai: Emerald.

Raman, Meenakshi.,Sangeetha Sharma. (2008). *Technical Communication: English forEngineers*. Delhi: Oxford University Press.

Srinivasan, Hema. (2001). *Communication Skills: A Practical Approach*. New Delhi: Frank Bros.

| Course Code<br>20UENN31 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | H   | M   | M   | L   | M   | L   | M   |
| CO2                     | M   | H   | L   | L   | M   | M   | L   |
| CO3                     | M   | H   | M   | L   | H   | L   | L   |
| CO4                     | M   | H   | M   | M   | H   | M   | L   |
| CO5                     | L   | M   | L   | M   | M   | L   | M   |

Dr.G.Athirshtakumari  
Head of the Department

Dr. K. Kavitha  
Dr.G.S.Sujantha  
Mrs.T.Malarkodi  
Course Designers



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**VIRUDHUNAGAR - 626 001**

### B.A. English (2020 -2021 onwards)

|                                |                                   |                |                |
|--------------------------------|-----------------------------------|----------------|----------------|
| Semester IV                    | <b>ENGLISH FOR PROFESSIONS II</b> | Hours/Week: 2  |                |
| Non Major Elective<br>Course-2 |                                   | Credits: 2     |                |
| Course Code<br><b>20UENN41</b> |                                   | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, the students will be able to

- CO1: define the skills necessary for better inter-personal and intra-personal communication and the use of English grammar for better professional writing. [K1]
- CO2: explain the correct use of grammar and various forms of written communication and non-verbal communication skills. [K2]
- CO3: discuss the art of professional and technical writing. [K2]
- CO4: apply their knowledge of English grammar and soft skills to enhance their career prospects. [K3]
- CO5: demonstrate their written communication skills for the media and social correspondence. [K3]

### UNIT I SOFT SKILLS

Adaptability Skills

Senor Payroll – W.E.Barrett

Problem Solving Skills



The look - out man – Nicolas Bentley  
(From *English and Soft Skills* p.85-98, 57-68) (6 Hours)

## UNIT II GRAMMAR USAGE

Concord  
Correction of Sentences  
(From *Effective Technical English* p.25-29, 47-59) (6 Hours)

## UNIT III WRITTEN COMMUNICATION SKILLS

Social Correspondence: Letter of Recommendation - Letter of Introduction  
Letter of Congratulation - Formal Invitation  
(From *Developing Communication Skills* p. 190-197) (6 Hours)

## UNIT IV PROFESSIONAL WRITING

Advertisement  
Newspaper Report  
Review of a movie  
(From *Communication Skills* p. 151-158, 199-206) (6 Hours)

## UNIT V TECHNICAL WRITING

Report of a Seminar  
Abstract writing  
(From *Communication Skills* p.151-152, 191-196) (6 Hours)

## ASSIGNMENT

Public Speech

## TEXT BOOKS

Dhanavel, S.P. (2010). *English and Soft Skills*. Hyderabad: Orient Blackswan.  
Lakshminarayanan, K.R. (2003). *Effective Technical English*. Chennai: Scitech Publications.  
Mohan. Krishna, Meera Banerji. (1994). *Developing Communication Skills*. Chennai: Macmillan Private.  
Srinivasan, Hema. (2001). *Communication Skills: A Practical Approach*. Delhi: Frank Bros.

| Course Code<br>20UENN41 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | M   | H   | H   | M   | L   | H   | M   |
| CO2                     | M   | H   | L   | L   | M   | L   | L   |
| CO3                     | M   | H   | L   | L   | M   | L   | L   |
| CO4                     | M   | H   | M   | M   | M   | L   | L   |
| CO5                     | L   | M   | L   | M   | M   | H   | M   |

Dr.G.Athirshtakumari  
Head of the Department

Dr. K. Kavitha  
Dr.G.S.Sujantha  
Mrs.T.Malarkodi  
Course Designers



## வே.வ.வன்னியப்பெருமாள் பெண்கள் கல்லூரி

(விருதுநகர் இந்து நாடார்களுக்குப் பாத்தியப்பட்டது)  
மதுரை காமராசர் பல்கலைக்கழகத்தின் கீழ் தன்னாட்சி உரிமம் பெற்றது  
(தேசிய தரமதிப்பீட்டுக் குழுவின் மறுமதிப்பீட்டில் (மூன்றாம் சுற்று) 'A' அந்தஸ்து பெற்றது)  
விருதுநகர் - 626001

இளங்கலைத்தமிழ்

(2020 – 2021 ஆம் ஆண்டு முதல் சேரும் மாணவர்களுக்குரியது)

|                                  |                       |                    |                     |
|----------------------------------|-----------------------|--------------------|---------------------|
| மூன்றாம் பருவம்                  | இக்கால நீதி இலக்கியம் | நேரம் ∴ வாரம் : 2  |                     |
| Non Major Elective Course - I    |                       | தர மதிப்பு : 2     |                     |
| பாடக் குறியீட்டு எண்<br>20UTAN31 |                       | அக மதிப்பெண்<br>40 | புற மதிப்பெண்<br>60 |

### கற்றல் வெளிப்பாடு

இந்தப் பாடத்திட்டம் முடிந்த பிறகு, மாணவர்கள்

CO1: வாழ்வியல் அறங்களை எடுத்துரைப்பர். [K1]

CO2: நீதி இலக்கியக் கருத்துக்களையும் வகைமைகளையும் வெளிப்படுத்துவர். [K1]

CO3: இக்காலநீதி இலக்கியங்கள் உணர்த்தும் அறக்கருத்துகளைச்சுட்டுவர். [K2]

CO4: காலச் சூழலுக்கேற்ப அறநெறிகள் மாறும் விதத்தினை இனம் கண்டு  
புலப்படுத்துவர். [K2]

CO5: அறநெறிகளை வாழ்வில் பின்பற்றுவர். [K3]

### கூறு 1

உலகநீதி (முழுவதும்)

(6 மணிநேரம்)

### கூறு 2

கொன்றை வேந்தன் (முழுவதும்)

(6 மணிநேரம்)

### கூறு 3

வெற்றிவேற்கை (முழுவதும்)

(6 மணிநேரம்)

### கூறு 4

அ. முதுரை – 1,2,4,6,7,8,13,17,23,26 (10 பாடல்கள்)

1. வாக்குண்டாம் நல்ல மனமுண்டாம்...

2. நல்லார் ஒருவர்க்குச் செய்த ...

3. அட்டாலும் பால் சுவையின் ...
4. உற்ற இடத்தில் ...
5. நீரளவே ஆகுமாம்...
6. நல்லாரைக் காண்பதுவும் ...
7. கவையாகிக் கொம்பாகிக் காட்டகத்தே...
8. அற்ற குளத்தின் ...
9. கற்பிளவோடு ...
10. மன்னனும் ...

**ஆ) நல்வழி – 2,9,10,11,12,16,22,26,28,36 (10 பாடல்கள்)**

1. சாதி இரண்டொழிய ...
2. ஆற்றுப் பெருக்கு ...
3. ஆண்டாண்டு தோறும் ...
4. ஒருநாள் உணவை ...
5. ஆற்றங்கரையின் ...
6. தண்ணீர் நிலநலத்தால் ...
7. பாடுபட்டுத் தேடி ...
8. மானம் கல்வி ...
9. உண்பது நாழி ...
10. நண்டு சிப்பி ...

**இ) நன்னெறி– 1,3,4,22,26 (5 பாடல்கள்)**

1. என்றும் முகமன் ...
2. தங்கட்குதவிலர் ...
3. பிறருக்கு உதவி ...
4. ஆக்கும் அறிவான் ...
5. உடலின் சிறுமை ...

(6 மணிநேரம்)

**கூறு 5**

பாரதியாரின் புதிய ஆத்திசூடி

பாரதிதாசனின் ஆத்திசூடி

(6 மணிநேரம்)

**பாடநூல்**

1. கீர்த்தி (உ.ஆ). (2011). நீதிநூல்கள். சென்னை: அருணா பப்ளிகேன்ஸ்.
2. பாரதியார் கவிதைகள். (2014). சென்னை: காளீஸ்வரி பதிப்பகம்.
3. பாரதிதாசன் ஆத்திசூடி. (2009). சென்னை: மணிவாசகர் பதிப்பகம்.

|                         |     |     |     |     |     |     |     |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| Course Code<br>20UTAN31 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|

|     |   |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|---|
| CO1 | H | H | M | M | M | H | H |
| CO2 | H | H | H | M | H | H | H |
| CO3 | H | H | H | M | M | H | H |
| CO4 | H | H | H | H | H | H | H |
| CO5 | H | H | H | H | H | H | H |

Dr.T.Velmayil  
Head of the Department

Dr.V.Prabhavathi  
Course Designer



### வே.வ.வன்னியப்பெருமாள் பெண்கள் கல்லூரி

(விருதுநகர் இந்து நாடார்களுக்குப் பாத்தியப்பட்டது)  
மதுரை காமராசர் பல்கலைக்கழகத்தின் கீழ் தன்னாட்சி உரிமம் பெற்றது  
(தேசிய தரமதிப்பீட்டுக் குழுவின் மறுமதிப்பீட்டில் (முன்றாம் சுற்று) 'A' அந்தஸ்து பெற்றது)  
விருதுநகர் - 626001

இளங்கலைத்தமிழ்

(2020 – 2021 ஆம் ஆண்டு முதல் சேரும் மாணவர்களுக்குரியது)

|                                  |                 |                    |                     |
|----------------------------------|-----------------|--------------------|---------------------|
| நான்காம் பருவம்                  | உரைநடைஇலக்கியம் | நேரம் / வாரம் : 2  |                     |
| Non Major Elective<br>Course- 2  |                 | தர மதிப்பு : 2     |                     |
| பாடக் குறியீட்டு எண்<br>20UTAN41 |                 | அக மதிப்பெண்<br>40 | புற மதிப்பெண்<br>60 |

#### கற்றல் வெளிப்பாடு

இந்தப் பாடத்திட்டம் முடிந்த பிறகு, மாணவர்கள்

CO1: உரைநடையின் சிறப்புகளை எடுத்துரைப்பர். [K1]

CO2: உரைநடை அமைப்பினை அறிந்து வெளிப்படுத்துவர். [K1]

CO3: உரைநடை ஆசிரியர்களின் மொழிநடைச்சிறப்பை இனங்காண்பர். [K2]

CO4: உரைநடையில் இடம் பெறும் உத்திகளை அறிவர். [K3]

CO5: பல்துறைசார்ந்த தமிழ் உரைநடை இலக்கியங்களை ஒப்பிடுவர். [K3]

#### கூறு 1

கல்வெழுத்துக்கள், கம்பனின் அறிமுகம்.

(6 மணி நேரம்)

#### கூறு 2

அடிகளாரின் அரசியல், புதுமையாளர் பாரதி.

(6 மணி நேரம்)

#### கூறு 3

அறிவியல் தமிழ், பக்தியும் பாட்டும்.

(6 மணி நேரம்)

#### கூறு 4

தமிழ் இதழியல், மதுரை மாநகர், தமிழ் உரைநடை

(6 மணி நேரம்)

#### கூறு 5

இலக்கியமும் சிற்பமும், கவிதை மொழிபெயர்ப்பு, அகராதித் கலை. (6 மணி நேரம்)

பாட நூல்

தொ.பரமசிவன் (1991).நாள் மலர்கள். சென்னை: பாவை வெளியீடு.

| Course Code | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------|-----|-----|-----|-----|-----|-----|-----|
| 20UTAN41    |     |     |     |     |     |     |     |
| CO1         | H   | H   | M   | M   | M   | L   | H   |
| CO2         | H   | M   | H   | H   | L   | M   | H   |
| CO3         | H   | H   | H   | H   | H   | M   | M   |
| CO4         | H   | H   | H   | H   | H   | M   | H   |
| CO5         | H   | H   | H   | H   | H   | H   | H   |

Dr.T.Velmayil  
Head of the Department

Dr.V.Prabhavathi  
Course Designer



## V.V.VANNIAPERUMAL COLLEGE FOR WOMEN

(Belonging to Virudhunagar Hindu Nadars)

An Autonomous Institution Affiliated to Madurai Kamaraj University, Madurai

Re-accredited with 'A' Grade (3<sup>rd</sup> Cycle) by NAAC

**VIRUDHUNAGAR - 626 001**

### Non Major Elective Course (2020-21 onwards)

|                                |                 |                |                |
|--------------------------------|-----------------|----------------|----------------|
| Semester III                   | Basic Hindi – I | Hours/Week: 2  |                |
| Non Major Elective Course -1   |                 | Credits:2      |                |
| Course Code<br><b>20UBHN31</b> |                 | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of this course, the students will be able to

CO1: list the Basic Hindi Vowels and Consonants. [K1]

CO2: illustrate the words used in Daily life situations. [K2]

CO3: classify Hindi words that are commonly used in conversation. [K2]

CO4: translate the Tamil sentences to Hindi. [K2]

CO5: apply the acquired knowledge of grammatical structure for better communication. [K3]

### UNIT I Hindi Letters

Vowels – Consonants – Semi Consonants –Compound Letters – Bindhu Letters – Consonant vowels. (6 Hours)

### UNIT II Daily Usage of Hindi Words

Names of Flowers - Names of Fruits - Names of Birds – Names of Animals & Names of Vegetables (6 Hours)

### UNIT III Basic Hindi Words

Names of Days - Names of Colours- Names of Directions -

Names of Months &amp; Numbers in Hindi (1 -50)

(6 Hours)

**UNITIV Grammar - I**

Present Tense - Present Continuous Tense - Past Tense &amp; Imperative

(6 Hours)

**UNIT V Translation - I**

Lesson 1, 2 &amp; 3 Tamil to Hindi only

(6 Hours)

**REFERENCE TEXT BOOKS (Prescribed Portion)**

1. Nayee Hindi Rachana – I (Page No. 5-13, 15-17 & 82)
2. Hindi Vathayan (Page No.7, 8, 10-14, 16-20)
3. AnuvadAbhyas – I (Page No.1, 2, 11, 12, 15, 16)

**Web Reference :** [www.tnschools.co.in](http://www.tnschools.co.in) e –Book

| Course Code<br>20UBHN31 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | H   | M   | H   | M   | L   | H   | M   |
| CO2                     | M   | H   | H   | L   | L   | M   | M   |
| CO3                     | H   | M   | H   | H   | M   | M   | L   |
| CO4                     | H   | M   | H   | H   | L   | L   | M   |
| CO5                     | M   | H   | M   | L   | M   | H   | L   |

Tmt.G.Uma Devi  
Head of the Department

Tmt.G.Uma Devi  
Course Designer





## V.V.VANNIAPERUMAL COLLEGE FOR WOMEN

(Belonging to Virudhunagar Hindu Nadars)

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Re-accredited with 'A' Grade (3<sup>rd</sup> Cycle) by NAAC

VIRUDHUNAGAR - 626 001

### Non Major Elective Course (2023 -24 onwards)

|                         |                       |                |                |
|-------------------------|-----------------------|----------------|----------------|
| Semester III            | FUNDAMENTAL HINDI – I | Hours/Week: 2  |                |
| Part IV                 |                       | Credits:2      |                |
| Course Code<br>22UHDN31 |                       | Internal<br>40 | External<br>60 |

#### COURSE OUTCOMES

On completion of this course, the students will be able to

CO1: spell and write the Hindi letters and basic Hindi words. [K1]

CO2: state the short answers for W/H questions. [K1]

CO3: describe the theme of poems and contents of prose. [K2]

CO4: apply the grammar to present short slogans. [K3]

CO5: write creative sentences as required. [K3]

**bdkbZ I**                    **v{kjkyk vkSj 'kCnkoyh** (Hindi Alphabets and Words )  
Loj&O;atu& v/kZO;atu&ek «kk, j & ;kSfxd v{kj&la;qä  
v{kj&fcanq v{kj&ckjg [kMhvkSj 'kCnkoyh A  
Vowel – Consonant - Semi-consonant - Compound letter-Combined  
letter – Bindhu letter – Bharah Khadiyang – Glossary Words .  
(6 Hours)

**bdkbZ II**    **vk/kqfud i|** - Modern Poetry  
lh[kks– isM+ – cM+k dkSu gS A  
(Seekho – Pad – Bhada Kown hai) (6 Hours)

**bdkbZ III**    **x|** - Prose  
cky cksf/kuh – ikB 1 ls 7 rd  
( Bala Bhodhini – Lesson 1 to 7 ) (6 Hours)

**bdkbZ IV**    **O;kdj.k vkSj vuqokn** - Grammar and Translation  
laKk – loZuke – fØ;k- fØ;kfo'ks"k.k &

vuqokn – I- ikB 1 ls 5 rd (vaxzsth ls fgUnh esa )

( Noun – Pronoun – Action Verbs - Adverb &

Translation – I Lesson 1 to 5 (English to Hindi)

(6 Hours)

**bdkbZ v ĩtukRed ys[ku - Creative Writing**

17<sup>th</sup> Academic Council Meeting 31.01.2023

okD; cuk,a– ukjsa/Lyksxu ys[ku– dgkor ysdu – x|ka'k ys[ku – I A

( Make the Sentence – Slogan writing – Proverbs writing - Comprehension -I)

(6 Hours)

**TEXT BOOKS: (Prescribed Portion)**

1. Saral Hindi Bhodhani,Dakshin Bharat Hindi PracharSabha,Chennai.(2018).
2. Subhodh Hindi Patmala I ,Dakshin Bharat Hindi PracharSabha,Chennai.(2018).
3. SubodhHindi Rachana – I, Dakshin Bharat Hindi PracharSabha,Chennai.(2018).
4. Dr. Vijay Kulshrestha, *Hindi Journalism and Creative Writing*, Hindi Granth Academy, Rajasthan. (2017)
5. Anuvad Abyas – I. Dakshin Bharat Hindi PracharSabha,Chennai.(2018).

| Course Code<br>22UHDN31 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | H   | H   | L   | -   | -   | M   | -   |
| CO2                     | M   | H   | H   | -   | M   | H   | -   |
| CO3                     | H   | M   | L   | -   | L   | H   | -   |
| CO4                     | M   | H   | M   | -   | -   | -   | -   |
| CO5                     | M   | M   | L   | -   | H   | M   | -   |

Tmtty.G.Uma Devi  
Head of the Department

Tmtty.G.Uma Devi  
Course Designer



## V.V.VANNIAPERUMAL COLLEGE FOR WOMEN

(Belonging to Virudhunagar 17<sup>th</sup> Academic Council Meeting 31.01.2023)

An Autonomous Institution Affiliated to Madurai Kamaraj University, Madurai

Re-accredited with 'A' Grade (3<sup>rd</sup> Cycle) by NAAC

**VIRUDHUNAGAR - 626 001**

**Non Major Elective Course**

**(2020 -21 onwards)**

|                                |                  |                |                |
|--------------------------------|------------------|----------------|----------------|
| Semester IV                    | Basic Hindi – II | Hours/Week: 2  |                |
| Non Major Elective Course -2   |                  | Credits:2      |                |
| Course Code<br><b>20UBHN41</b> |                  | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of this course, the students will be able to

CO1: list out the vocabulary in the prescribed prose. [K1]

CO2: explain the ways of greetings and proverbs used in daily life. [K2]

CO3: illustrate common Hindi sentences and use them effectively in communication. [K2]

CO4: translate the sentences in the Regional language to Hindi. [K2]

CO5: employ the basic structures in Hindi and develop their skills. [K3]

### UNIT I Hindi Sentences

Greetings and Gratitude (10) - Useful Expressions (20) -  
Proverbs in Hindi (10)

(6 Hours)

### UNIT II Prose (Lesson 1,4 & 6 )

Synonyms -Antonyms - Match the following - Question and Answer

(6 Hours)

### UNIT III Advanced Hindi Words (each 20 Words)

Prepositions -Conjunctions - Verbs – Adverbs

(6 Hours)

### UNIT IV Grammar – II

Future Tense - Adjectives - Gender -Singular & Plural

(6 Hours)

### UNIT V Translation -II

Lesson 4, 5&amp; 6 Tamil to Hindi only

(6 Hours)

**Text Books:(Prescribed Portion)**

1. Subhodh Hindi Patmala (Page No. 74 to 85)
2. Nayee Hindi Rachana – I (Page No. 39-41, 43-44 & 51-53)
3. Hindi Vathayan (Page No.67-68)
4. Bolchal Hindi – I (Page No. 100 – 110 )
5. AnuvadAbhyas – I (Page No.17,18, 21,22, 24,25)

| Course Code<br>20UBHN41 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | H   | M   | H   | M   | M   | H   | M   |
| CO2                     | H   | L   | H   | L   | L   | M   | L   |
| CO3                     | H   | M   | H   | H   | M   | M   | L   |
| CO4                     | H   | M   | H   | H   | L   | L   | M   |
| CO5                     | M   | H   | M   | L   | M   | L   | K   |

Tmtty.G.Uma Devi  
Head of the Department

Tmtty.G.Uma Devi  
Course Designer



## V.V.VANNIAPERUMAL COLLEGE FOR WOMEN

(Belonging to Virudhunagar Hindu Nadars)

An Autonomous Institution Affiliated to Madurai Kamaraj University, Madurai

Re-accredited with 'A' Grade (3<sup>rd</sup> Cycle) by NAAC

**VIRUDHUNAGAR - 626 001**

### Non Major Elective Course

(2023 -24 onwards)

|                                |                               |                |                |
|--------------------------------|-------------------------------|----------------|----------------|
| Semester IV                    | <b>FUNDAMENTAL HINDI – II</b> | Hours/Week: 2  |                |
| Part IV                        |                               | Credits:2      |                |
| Course Code<br><b>22UHDN41</b> |                               | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of this course, the students will be able to

CO1: describe the theme and contents of meaning poetry, prose and story. [K1]

CO2: explain the moral values in poems, prose and stories. [K2]

CO3: compare, contrast and classify the contents of prescribed portion as required. [K2]

CO4: apply to form sentences for writing story, essay and conversation. [K3]

CO5: translate from English to Hindi and to write creatively. [K3]

**bdkbZ I vk/kqfud ij - Modern Poetry**  
oanuk – dks;y – pkjnuhA ( Vandhana – Koyal – Chandhini ) (6 Hours)

**bdkbZ II xj - Prose**  
gekjk Hkkjr – is'ksoj – Mkdw ls egkRek A  
( Hamara Bharath – Pasevar – Dakoo se Mahatma ) (6 Hours)

**bdkbZ III dgkuh – Story**  
ykyphdq`Ukk – nthZ vkSj gkFkh – diM+ksa dks vknj A  
( Lalachi Kuttha - Dharji Aour Haathi – Kapdong ka Aadhar ) (6 Hours)

**bdkbZ IV O;kdj.k vkSj vuqokn - Grammar and Translation**

orZekudky – Hkfo";dky – Hkwrddy &  
vuqokn – II - ikB 1 ls 5 rd ( vaxzsth ls fgUnh esa )

(Present Tense – Past Tense – Future Tense &  
Translation – II Lesson 1 to 5 (English to Hindi) (6 Hours)

**bdkbZ v ĩ tukRed ys[ku - Creative Writing**

dgkuh ys[ku – laokn ys[ku – fHkUu fHkUu vFkZ 'kCn  
dks okD; ys[ku &

x|ka'k ys[ku – II A

(Story writing – Conversation writi <sup>17<sup>th</sup> Academic Council Meeting 31.01.2023</sup>

:Sentence Writing - Comprehension -II) (6 Hours)

**Text Books: (Prescribed Portion)**

1. Saral Hindi Bhodhani, Dakshin Bharat Hindi PracharSabha,Chennai. (2018).
2. Subhodh Hindi PatmalaI , Dakshin Bharat Hindi PracharSabha,Chennai.(2018).
3. SubodhHindi Rachana – I, Dakshin Bharat Hindi PracharSabha,Chennai.(2018).
4. Dr. Vijay Kulshrestha, *Hindi Journalism and Creative Writing*,Rajasthan Hindi GranthAcademy,Rajasthan.(2017).
5. Anuvad Abyas – I. Dakshin Bharat Hindi PracharSabha,Chennai.(2018).

| Course Code<br>22UHDN41 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | H   | M   | H   | -   | -   | M   | -   |
| CO2                     | H   | M   | L   | -   | M   | H   | -   |
| CO3                     | M   | M   | H   | -   | L   | H   | -   |
| CO4                     | H   | H   | L   | -   | -   | -   | -   |
| CO5                     | M   | H   | L   | -   | H   | M   | -   |

Tmty.G.Uma Devi  
Head of the Department

Tmty.G.Uma Devi  
Course Designer



## V.V.VANNIAPERUMAL COLLEGE FOR WOMEN

(Belonging to Virudhunagar I 17<sup>th</sup> Academic Council Meeting 31.01.2023)  
 An Autonomous Institution Affiliated to Madurai  
 Re-accredited with 'A' Grade (3<sup>rd</sup> Cycle) by NAAC  
**VIRUDHUNAGAR - 626 001**

**B.Com./B.Com. CA (Aided)**  
**(2020 -21 onwards)**  
**(B.Com./B.Com. CA (SF) /B.Com.PA - 2020-2023 only)**

|                                |                          |                |                |
|--------------------------------|--------------------------|----------------|----------------|
| Semester III                   | <b>PRACTICAL BANKING</b> | Hours/Week: 2  |                |
| Non Major Elective Course -1   |                          | Credits: 2     |                |
| Course Code<br><b>20UCON31</b> |                          | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, the students will be able to

CO1: define the various concepts of Banking and electronic mode of Banking. [K1]

CO2: explain the banking features, FDR, cheques and different types of cards. [K1]

CO3: understand the procedure for opening an account and developing skills regarding the use of electronic payments and clearance in digital transactions. [K2]

CO4: classify the different types of deposits, Non-Negotiable Instrument and electronic payment systems. [K2]

CO5: use the functionality of RTGS and Banking Services. [K3]

### UNIT I

**Introduction:** Bank – Banking - Banker – Definition - Customer – Meaning – Procedure for Opening an Account. (6 Hours)

### UNIT II

**Deposits:** Types – Savings – Current – Fixed – Recurring. (4 Hours)

### UNIT III

**Negotiable Instruments:** Draft - Cheque – Definition – Specimen Form – Drawing of a Cheque – Electronic Cheques (E-Cheque) – Features – Advantages – Electronic Cash (E-Cash) – Features. (6 Hours)

#### UNIT IV

**E-Banking:** Mobile Banking – Internet Banking– Green Banking. (6 Hours)

#### UNIT V

**Electronic Payment System:** ATM - Debit Card - Credit Card, Smart Card, NEFT, RTGS. (8 Hours)

#### SELF STUDY FOR ASSIGNMENT

1. Filling up of Account Opening Form and Writing of Cheque.
2. Electronic Purse (E-Purse).

#### TEXT BOOK

Study Material Prepared by the Course Teacher.

#### REFERENCE BOOKS

1. Rama, A.& Aruna Devi. A. (2019). *Banking Technology*, Chennai: New Century Book House (P) Ltd., 5<sup>th</sup> Revised Edition.
2. Gordon & Natarajan, (2017). *Banking Theory Law and Practice*, Mumbai: Himalaya Publishing House, 26<sup>th</sup> Revised Edition.

| Course Code<br>20UCON31 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | H   | M   | M   | M   | H   | M   | M   |
| CO2                     | H   | M   | M   | M   | H   | --- | M   |
| CO3                     | H   | H   | H   | H   | M   | M   | M   |
| CO4                     | H   | H   | H   | H   | H   | M   | M   |
| CO5                     | H   | M   | M   | M   | H   | M   | M   |

Dr. A. Rama  
Head of the Department

Dr. M. Annam  
Dr. J.Premila  
Mrs. J.Babitha  
Course Designers





## V.V.VANNIAPERUMAL COLLEGE FOR WOMEN

(Belonging to Virudhunagar Hindu Nadars)

An Autonomous Institution Affiliated to Madurai Kamaraj University, Madurai  
Re-accredited with 'A' Grade (3<sup>rd</sup> Cycle) by NAAC

**VIRUDHUNAGAR - 626 001**

**B.Com. /B.Com.C.A. (Aided)**

**(2023 - 24 onwards)**

|                                 |                          |                |                |
|---------------------------------|--------------------------|----------------|----------------|
| Semester III                    | <b>PRACTICAL BANKING</b> | Hours/Week: 2  |                |
| Non Major Elective Course       |                          | Credits: 2     |                |
| Course Code<br><b>20UCON31N</b> |                          | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, the students will be able to

- CO1: state the basic concepts of banking and electronic payment system. [K1]  
 CO2: describe the relevant provisions of Act regarding banking and Electronic payment system. [K2]  
 CO3: classify the types of deposits, negotiable instruments, forms of advances and electronic payment systems. [K2]  
 CO4: apply the procedures and principles involved in banking and Electronic payment [K3]  
 CO5: fill up of Account Opening Form and draw a cheque and show the features, advantages and disadvantages of Mobile Banking and Green Banking [K3]

### UNIT I

**Banking:** Definition- Meaning: Bank – Banking – Banker – Customer - Procedure for Opening an Account. (6 Hours)

### UNIT II

**Deposits:** Types – Savings – Current – Fixed –Recurring. (5 Hours)

### UNIT III

**Negotiable Instruments:** Draft –Cheque– Definition –Specimen Form – Drawing of a Cheque– Electronic Cheques (E-Cheque) – Features – Advantages– Electronic Cash (E-

Cash) – Features.

#### UNIT IV

**Loan and Advances:** Principles of Sound Lending - Secured and Unsecured  
Advances – Forms of Advances – canons of a good banking security . (5 Hours)

#### UNIT V

17<sup>th</sup> Academic Council Meeting 31.01.2023

**Electronic Payment System:** ATM – Debit Card – Credit Card, Smart Card, NEFT,  
RTGS. (8 Hours)

#### SELF STUDY FOR ASSIGNMENT

1. Filling up of Account Opening Form and Writing of Cheque.
2. Mobile Banking and Green Banking

#### TEXT BOOK

Study Material Prepared by the Course Teacher.

#### REFERENCE BOOKS

1. Gordon &Natarajan, (2017). *Banking Theory Law and Practice*, Mumbai: Himalaya Publishing House, 26<sup>th</sup> Revised Edition.
2. Rama, A., &Aruna Devi, A. (2019). *Banking Technology*, Chennai: New Century Book House (P) Ltd., 5<sup>th</sup> Revised Edition.

| Course Code<br>20UCON3N | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | H   | M   | L   | M   | M   | -   | -   |
| CO2                     | H   | L   | L   | -   | L   | -   | -   |
| CO3                     | H   | M   | L   | M   | L   | -   | -   |
| CO4                     | H   | L   | L   | H   | L   | -   | -   |
| CO5                     | H   | L   | L   | L   | M   | -   | -   |



**V.V.VANNIAPERUMAL COLLEGE FOR WOMEN**

(Belonging to Virudhunag *17<sup>th</sup> Academic Council Meeting 31.01.2023*)

An Autonomous Institution Affiliated to Madurai Kamaraj University, Madurai  
Re-accredited with 'A' Grade (3<sup>rd</sup> Cycle) by NAAC

**VIRUDHUNAGAR - 626 001**

**B.Com./B.Com. CA (Aided)**

**(2020 -21 onwards)**

**(B.Com./B.Com. CA (SF) /B.Com.PA - 2020-2023 only)**

|                                |  |                |                |
|--------------------------------|--|----------------|----------------|
| Semester IV                    | <b>BASIC ACCOUNTING<br/>PRINCIPLES</b> | Hours/Week: 2  |                |
| Non Major Elective Course -2   |  | Credits: 2     |                |
| Course Code<br><b>20UCON41</b> |  | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, the students will be able to

CO1: define the various concepts of accounting terminology. [K1]

CO2: understand the accounting standards and accounting process. [K1]

CO3: explain the rules for journalising and balancing the accounts. [K2]

CO4: describe the procedure for preparing Trial Balance. [K2]

CO5: prepare the final accounts. [K3]

### UNIT I

**Introduction:** Book Keeping – Accounting – Double Entry System – Classification of Accounts Accounting Standards–Meaning–Definition–Significance. (5 Hours)

### UNIT II

**Journal Entry:** Rules for Journalising – Passing of Journal Entries. (5 Hours)

### UNIT III

**Ledger:** Purpose – Posting in the Ledger - Balancing an Account (5 Hours)

### UNIT IV

**Trial Balance:** Preparation of Trial Balance. (5 Hours)

### UNIT V

**Final Accounts of Sole Trading Concern:** Adjustment regarding Closing Stock, Outstanding Expenses, Prepaid Expenses, Accrued Income, Income Received in Advance and Depreciation only. (10 Hours)

### SELF STUDY FOR ASSIGNMENT

1. Advantages of Double Entry System.
2. Book keeping Vs. Accounting.

#### Note:

**Composition of the Question Paper : Theory : 33%**

**Problems : 67%**

### TEXT BOOK

Nagarajan, K.L. Vinayagam, N. & Mani, P.L. (2013). *Principles of Accountancy*, New Delhi: Eurasia Publishing House Pvt. Ltd. Reprint.

### REFERENCE BOOKS

1. Reddy, T.S. & Murthy. A. (2011). *Financial Accounting*, Chennai: Margham Publications, 6<sup>th</sup> Revised Edition, Reprint 2018.
2. Arulanandam, M.A. & Raman, K.S. (2014). *Advanced Accountancy*, Mumbai: Himalaya Publishing House, 9<sup>th</sup> Revised Edition, Reprint 2016.

| Course Code<br>20UCON41 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | H   | M   | H   | M   | -   | -   | H   |
| CO2                     | H   | H   | L   | -   | -   | -   | M   |
| CO3                     | H   | H   | M   | M   | -   | -   | H   |
| CO4                     | M   | M   | H   | -   | -   | -   | H   |
| CO5                     | H   | M   | M   | H   | -   | -   | H   |

Dr. M. Annam  
Dr. J. Premila



## V.V.VANNIAPERUMAL COLLEGE FOR WOMEN

(Belonging to Virudhunagar Hindu Nadars)

An Autonomous Institution Affiliated to Madurai Kamaraj University, Madurai  
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**VIRUDHUNAGAR - 626 001**

**B.Com./B.Com.C.A. (Aided)**

**(2022 - 23 onwards)**

**(B.Com./B.Com.C.A. (Self) / B.Com.P.A. - 2022-2023 only)**

|                                 |                                    |                |                |
|---------------------------------|------------------------------------|----------------|----------------|
| Semester IV                     | <b>BASIC ACCOUNTING PRINCIPLES</b> | Hours/Week: 2  |                |
| Non Major Elective Course       |                                    | Credits: 2     |                |
| Course Code<br><b>20UCON41N</b> |                                    | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, the students will be able to

CO1: identify and be familiar with the various concepts of accounting terminology. [K1]

CO2: describe the accounting standards and accounting process. [K2]

CO3: explain the rules for journalising and balancing the accounts. [K2]

CO4: apply the procedure for preparing Trial Balance. [K3]

CO5: prepare the final accounts. [K3]

### UNIT I

**Introduction** : Book Keeping – Accounting – Accounting Concepts and Conventions –Double Entry System – Classification of Accounts – Accounting Standards – Meaning – Definition –Significance. (5 Hours)

### UNIT II

**Journal Entry** : Rules for Journalising – Passing of Journal Entries. (5 Hours)

### UNIT III

**Ledgers**: Purpose – Postings in the Ledger - Balancing an Account.

**Subsidiary Books** :Sales, Purchases and Cash Book (Single Column only).

(6 Hours)

**UNIT IV**

**Trial Balance:** Preparation of Trial Balance. (4 Hours)

**UNIT V**

**Final Accounts of Sole Trading Concern:** Preparation of Trading Account- profit & loss Account -Balance Sheet -Adjustment with Closing Stock only. (10 Hours)

**SELF STUDY FOR ASSIGNMENT**17<sup>th</sup> Academic Council Meeting 31.01.2023

1. Advantages of Double Entry System.
2. Book keeping Vs. Accounting.

**Note:**

**Composition of the Question Paper :** Theory :33%  
Problems : 67%

**TEXT BOOK**

Nagarajan, K.L. Vinayagam,N. &Mani,P.L. (2013). *Principles of Accountancy*,  
New Delhi: Eurasia Publishing House Pvt. Ltd. Reprint.

**REFERENCE BOOKS**

1. Reddy, T.S. & Murthy. A. (2011). *Financial Accounting*, Chennai: Margham Publications, 6<sup>th</sup> Revised Edition, Reprint 2018.
2. Arulanandam, M.A. & Raman, K.S. (2014). *Advanced Accountancy*, Mumbai: Himalaya Publishing House, 9<sup>th</sup> Revised Edition, Reprint 2016.

| Course Code<br>20UCON41N | PSO 1 | PSO 2 | PSO 3 | PSO 4 | PSO 5 | PSO 6 | PSO 7 |
|--------------------------|-------|-------|-------|-------|-------|-------|-------|
| CO 1                     | H     | H     | -     | -     | -     | -     | -     |
| CO 2                     | H     | H     | -     | -     | -     | -     | L     |
| CO 3                     | H     | H     | L     | L     | -     | -     | L     |
| CO 4                     | H     | H     | L     | L     | -     | -     | L     |
| CO 5                     | H     | H     | L     | L     | -     | L     | L     |

Dr. P. P. Shanthy  
Head of the Department

Dr. M. Annam  
Course Designers



*17<sup>th</sup> Academic Council Meeting 31.01.2023*

**V.V.VANNIAPERUMAL COL**  
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**VIRUDHUNAGAR - 626 001**

**B.Com. (SF)**  
**(2023 -2024 onwards)**

|                                |                             |                |                |
|--------------------------------|-----------------------------|----------------|----------------|
| Semester III                   | <b>FINANCIAL LITERACY I</b> | Hours/Week: 2  |                |
| Non Major Elective Course      |                             | Credits: 2     |                |
| Course Code<br><b>22UCON31</b> |                             | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, the students will be able to

CO1: define various concepts in financial services [K1]

CO2: understand the features and importance of financial services [K1]

CO3: describe the various classification of risks and types of deposits in banks, post office and insurance [K2]

CO4: summarise the advantages of availing financial services [K2]

CO5: synthesise the famous mobile banking apps in India and evaluate the formalities to open accounts in the bank [K3]

### Unit I

**Financial Literacy:** Meaning, importance and scope of financial literacy; Pre requisites of Financial Literacy – Various financial institutions – Banks, Insurance companies, Post Offices.

(6 Hours)

### Unit II

**Post Office Deposits:** Meaning – Types of Post Office Deposits: Fixed Deposits, Recurring Deposits and Savings Deposits – Features– Sukanya Samriddhi Yojana Account.

(6 Hours)

### Unit III

**Bank Deposits:** Definition – Features of Bank Deposits – Types of Bank Deposits: Fixed Deposits – Fixed Deposit Receipts – Features - Recurring Deposits, Savings Deposits and Current Deposits – Features-Deposits using ATM card. (6 Hours)

### Unit IV

17<sup>th</sup> Academic Council Meeting 31.01.2023

**Risk Management:** Meaning and Definition of Risk – Meaning of Uncertainty – Classification of Risks- Methods of Handling Risks- Management of Risk: Meaning and Definition – Features– Importance– Principles. (6 Hours)

### UNIT V

**Nature of Insurance Business:** Meaning and Definition of Insurance — Functions of Insurance – Benefits of Insurance- Classification of Insurance –Definition of contract of Insurance – Characteristics of insurance contract -Essential elements of a contract of insurance. (6 Hours)

### SELF STUDY FOR ASSIGNMENT:

1. Top ten mobile banking apps in India.
2. Formalities to open various types of bank account.

### TEXT BOOK

Study materials prepared by the course designer.

### REFERENCE BOOKS

1. Avadhani, V. A. (2019). Investment Management. Mumbai: Himalaya Publishing House Pvt. Ltd.
2. Kothari, R. (2010). Financial Services in India-Concept and Application. New Delhi: Sage Publications India Pvt. Ltd.
3. Periasamy, P. (2017). Principles and Practice of Insurance, Mumbai: Himalaya Publishing House

|                         |     |     |     |     |     |     |     |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| Course Code<br>22UCON31 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
| CO1                     | H   | H   | -   | L   | -   | L   | -   |



|     |   |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|---|
| CO2 | H | H | - | L | - | M | - |
| CO3 | H | H | - | L | - | - | - |
| CO4 | H | H | - | - | - | M | - |
| CO5 | H | H |   | M | - | L | - |

Dr. C.Amirtha selvi  
Head of the Department

Dr.V.Shanthameena  
Dr. J.Premila  
Course Designers



**V.V.VANNIAPERUMAL COLLEGE FOR WOMEN**  
(Belonging to Virudhunagar) <sup>17<sup>th</sup> Academic Council Meeting 31.01.2023</sup>  
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Re-accredited with 'A' Grade (3<sup>rd</sup> Cycle) by NAAC  
**VIRUDHUNAGAR - 626 001**

**B.Com. (SF)**  
**(2023- 2024 onwards)**

|                                |                              |                |                |
|--------------------------------|------------------------------|----------------|----------------|
| Semester IV                    | <b>Financial Literacy II</b> | Hours/Week: 2  |                |
| Non Major Elective Course      |                              | Credits: 2     |                |
| Course Code<br><b>22UCON41</b> |                              | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, the students will be able to

CO1: define the basic concepts of life insurance, marine and fire insurance, shares and Mutual funds. [K1]

CO2: describe the features of life, marine and fire insurance, shares and mutual funds.[K1]

CO3: classify the life, marine and fire insurance policies, shares and mutual funds. [K2]

CO4: explain the organizational structure of LIC, objectives and functions of SEBI and summarise the benefits of investment in real estate and gold. [K2]

CO5: apply the IRDA Guidelines for investment in LIC's fund and make use of insurance documents and policy conditions. [K3]

### UNIT I

**Life Insurance:** Meaning and Definition of Life insurance – features of life insurance  
Classification of Life Insurance Policies: on the basis of duration of policy and on the basis of methods of premium payments (6 Hours)

**UNIT II**

**Life Insurance Corporation of India (LIC):** Aims of LIC- Organizational Structure – Advantages of Life Insurance – Important Functions – Role of LIC in National Economy. (6 Hours)

**UNIT III**

**General Insurance Business:** Marine Insurance: Definition – Characteristics- Essential Elements of Marine Insurance – Types of Marine Insurance policies.

**Fire Insurance:** Definition – Fundamental Principle <sup>17<sup>th</sup> Academic Council Meeting 31.01.2023</sup>  
Insurance policies - Distinction between Life Insurance and Fire Insurance. (6 Hours)

**Unit IV**

**Shares:** Meaning – Definition – Features of Shares – Equity Shares, Preference Shares – Types of Preference Shares –Demat account- SEBI – Objectives and functions. (6 Hours)

**Unit V**

**Mutual Funds:** Meaning – Definition – Features of Mutual Funds – Types of Mutual Funds in India. Investment in Real Estate – Investment in Gold. (6 Hours)

**SELF STUDY FOR ASSIGNMENT**

1. IRDA Guidelines for investment in LIC's funds.
2. Insurance Documents and Policy conditions

**TEXT BOOK**

1. Periasamy, P. (2017). *Principles and Practice of Insurance*, Mumbai: Himalaya Publishing House.(Unit I,II and III)
2. Kothari, R. (2010). *Financial Services in India-Concept and Application*. New Delhi:Sage Publications India Pvt. Ltd.(Unit IV and V)

**REFERENCE BOOKS**

- 1.Mishra, M.N. (2016). *Insurance*, New Delhi: S.Chand & Co. Ltd.
- 2.Inderjit Singh, Rakesh Katyal., & Sanjay Arora. (2003). *Insurance Principles and Practices*, Ludhiana : Kalyani Publisher

| Course Code | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------|-----|-----|-----|-----|-----|-----|-----|
| 22UCON41    |     |     |     |     |     |     |     |
| CO1         | H   | H   | -   | L   | -   | L   | -   |

|     |   |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|---|
| CO2 | H | H | - | L | - | M | - |
| CO3 | H | H | - | L | - | - | - |
| CO4 | H | H | - | - | - | M | - |
| CO5 | H | H |   | M | - | L | - |

C.Amirtha Selvi

Head of the Department

Dr.B.Nandhini

Dr.V.Sakthi Devi

Course Designers

**V.V.VANNIAPERUMAL CO** 17<sup>th</sup> Academic Council Meeting 31.01.2023

(Belonging to Virudhunagar Hindu Nadars)

An Autonomous Institution Affiliated to Madurai Kamaraj University, Madurai

Re-accredited with 'A' Grade (3<sup>rd</sup> Cycle) by NAAC**VIRUDHUNAGAR - 626 001****B.Com. (Computer Applications) (SF)**

(2023-2024 onwards)

|                                |  |                       |                       |
|--------------------------------|--|-----------------------|-----------------------|
| Semester III                   | <b>SELF-EMPLOYMENT AND<br/>START-UP BUSINESS</b> | Hours/Week: 2         |                       |
| Non Major Elective             |  | Credits: 2            |                       |
| Course Code<br><b>22UCCN31</b> |  | <b>Internal</b><br>40 | <b>External</b><br>60 |

**COURSE OUTCOMES**

On completion of the course, the students will be able to

CO1: state the basic concepts related to self-employment, organisation, MSME, agency and financial institutions [K1]

CO2: describe the benefits, limitations and types related to self-employment, organization and agency. [K2]

CO3: explain the qualities of self-employed person, procedure to start small scale business.[K2]

CO4: distinguish self-employment and entrepreneurship and categorise the package for MSMEs and assistance from institutions for start-ups. [K3]

CO5: apply the concepts and procedures to start new business and agency with ethical principles. [K3]

**UNIT I**

**Self-Employment:** Concept – Characteristics – Opportunities – Benefits – Limitations – Qualities for Successfully Self-Employed Person – Self-Employment Vs. Entrepreneurship – Ethical Principles for Self-Employment. (6 Hours)

**UNIT II**

Selection of Types of Organisation: Sole Proprietorship – Partnership Firm – Limited Liability Partnership – Joint Stock Company – Choice of form of Organisation. (6 Hours)

**UNIT III**

17<sup>th</sup> Academic Council Meeting 31.01.2023

**Start-up of MSME:** Meaning – Definition – Documents required for MSME registration – Procedure to start MSME for Small Scale Business – Project Preparation. (6 Hours)

**UNIT IV**

**Agency Business:** Meaning – Types – Procedure to Start an Agency Business – Procedure to Start Digital Agency Business in India. (6 Hours)

**UNIT V**

**Financial Institutions:** Supporting Institutions for Small Scale Industries in Tamil Nadu – DIC - TIIC – SIDBI (6 Hours)

**SELF STUDY FOR ASSIGNMENT**

1. Prospects and Challenges of Small Scale Business in India
2. Scope and Opportunities to Become Women Entrepreneurs

**TEXT BOOK**

Study material prepared by Course Designer

**REFERENCE BOOKS**

1. Gupta, C.B., & Srinivasan, N.P., Entrepreneurial Development, New Delhi, Sultan Chand & Sons, Revised Edition, 2020.
2. Rengarajan, L.,(2008) *Entrepreneurial Development*, Rajapalayam, Sree Renga Publications

| Course Code<br>22UCCN31 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | H   | H   | -   | -   | -   | -   | -   |
| CO2                     | H   | H   | -   | -   | -   | -   | -   |

|     |   |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|---|
| CO3 | H | H | - | - | L | - | M |
| CO4 | H | H | M | L | - | - | - |
| CO5 | H | H | M | L | - | L | - |

Dr. P.P.Shanthy  
Head of the Department

Dr. P.Sridevi  
Dr. K. Nivedha  
Course Designers



## V.V.VANNIAPERUMAL COLLEGE FOR WOMEN

(Belonging to Virudhunagar H<sup>17<sup>th</sup></sup> Academic Council Meeting 31.01.2023

An Autonomous Institution Affiliated to Madurai K

Re-accredited with 'A' Grade (3<sup>rd</sup> Cycle) by NAAC

VIRUDHUNAGAR - 626 001

### B.Com. (Computer Applications) (SF)

(2023– 2024 onwards)

|                                |                                      |                |                |
|--------------------------------|--------------------------------------|----------------|----------------|
| Semester IV                    | <b>FUNDAMENTALS OF<br/>MARKETING</b> | Hours/Week: 2  |                |
| Non Major Elective             |                                      | Credits: 2     |                |
| Course Code<br><b>22UCCN41</b> |                                      | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, the students will be able to

CO1: state basic concepts related to market, marketing and social media marketing [K1]

CO2: explain the classifications, importance, characteristics of to market, marketing and social media marketing. [K2]

CO3: summarise the characteristics of market, marketing and social media marketing. [K2]

CO4: relate the marketing strategies for new product with ethical principles. [K3]

CO5: apply the marketing strategies for new product in social media marketing [K3]

### UNIT I

**Market:** Meaning – Definition – Classification of Market – Marketing – Meaning – Definition — Objectives – Importance – Marketing Mix – Elements of Marketing Mix.

(6 Hours)

### UNIT II

**Product:** Introduction and Important features of product - Product Life Cycle – Different Stages – Advantages of Product Life Cycle – New product development planning process. Pricing: Meaning - Importance – Objectives – Kinds of Pricing (6 Hours)

### UNIT III

**Promotion:** Meaning – Importance – Objectives – Forms of Promotion – Sales promotion – Objectives – Advantages – Limitations of Sales promotion. (6 Hours)

### UNIT IV

**Channels of Distribution:** Meaning – Definition – Importance – Factors determining choice of channel of distribution – Consumer Goods – Characteristics – Classification – Marketing Channel for Consumer Goods – Industrial Goods – Characteristics – Classification – Marketing Channel for Industrial Goods. (6 Hours)

### UNIT V

**Social Media Marketing:** Importance – Goals and Strategies – Advantages and Disadvantages – Security Measures – Ethics – Determine Common Social Media Pitfalls to Avoid – Tips to Use Social Media Marketing Tools: Twitter – LinkedIn – Snapchat – YouTube – Pinterest – Instagram. (6 Hours)

### SELF STUDY FOR ASSIGNMENT

1. Selection of Channel of Distribution for Given Product
2. Selection of Social Media for Given Product

### TEXT BOOK

Study material prepared by Course Designer

### REFERENCE BOOKS

1. Pillai, R.S.N & Bagavathi, (2016) *Marketing Management*, New Delhi, New Delhi S.Chand & Company Ltd.
2. Varshney, R.L. & Gupta, S.L., (2016) New Delhi S.Chand & Company Ltd.

| Course Code<br>22UCCN41 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | H   | H   | -   | -   | M   | -   | -   |
| CO2                     | H   | H   | -   | -   | M   | -   | -   |
| CO3                     | H   | H   | -   | -   | M   | -   | M   |
| CO4                     | H   | H   | M   | L   | M   | -   | -   |

|     |   |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|---|
| CO5 | H | H | M | L | M | L | - |
|-----|---|---|---|---|---|---|---|

Dr. P.P.Shanthy  
Head of the Department

Dr. P.T.Kanthimathi  
Dr. B.Suganya  
Course Designers

17<sup>th</sup> Academic Council Meeting 31.01.2023



**V.V.VANNIAPERUMAL COLLEGE FOR WOMEN**  
(Belonging to Virudhunagar Hindu Nadars)  
An Autonomous Institution Affiliated to Madurai Kamaraj University, Madurai  
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**VIRUDHUNAGAR - 626 001**

**B.Com. Professional Accounting**  
(2023– 2024 onwards)

|                                |                                  |                |                |
|--------------------------------|----------------------------------|----------------|----------------|
| Semester III                   | <b>WOMEN PROTECTION<br/>LAWS</b> | Hours/Week: 2  |                |
| Non Major Elective<br>Course   |                                  | Credits: 2     |                |
| Course Code<br><b>22UCPN31</b> |                                  | Internal<br>40 | External<br>60 |

**COURSE OUTCOMES**

On completion of the course, the students will be able to

- CO1 : state the basic concepts of women protection laws [K<sub>1</sub>]  
CO2 : explain the objectives and applications of women protection laws [K<sub>2</sub>]  
CO3 : describe the features of women protection laws and powers of protection officers and Government [K<sub>2</sub>]  
CO4 : apply the provisions of laws for women protection [K<sub>3</sub>]  
CO5 : use the legal rights and facilities prescribed in women protection laws [K<sub>3</sub>]

**UNIT I**

**The Hindu Succession Act 1956:** Introduction -Applications of Act- The Hindu Succession Amendment Act 2005 - Legal Heirs of Women - Rights of Women under Hindu Succession Act 2015.

**The Maternity Benefit (Amendment) Act 2017:** Introduction - Applicability- Eligibility - Purposes of Providing Maternity Leave- Features of Maternity Benefit Amendment Act 2017 - Significance of The Maternity Benefit Amendment Act 2017. (6 Hours)

## **UNIT II**

*17<sup>th</sup> Academic Council Meeting 31.01.2023*

**The Protection of Women from Domestic Violence Act, 2005:** Definition of Domestic Violence - Objectives of the Domestic Violence Act, 2005- Rights of Aggrieved Person- Essential Provisions of the Domestic Violence Act, 2005: Appointment of Protection Officers - Powers and Functions of Protection Officers - Powers and Functions of Service Providers - Duties and Functions of Police Officers and Magistrate - Shelter Homes - Medical Facilities - Duties of Providers of Shelter Homes and Medical Facilities - Duties of the Government- Application to the Magistrate- Monetary Reliefs - Custody orders - Protection orders - Residence order - Jurisdiction and procedure. (6 Hours)

## **UNIT III**

**The Indecent Representation of Women (Prohibition) Act, 1986 :**Definition of Indecent Representation - Preamble of the Act - Salient features of the Act - Section 2 to Section 10 - Prohibitions under The Indecent Representation of Women (Prohibition) Act, 1986 – Penalty - Offences by Companies - Offences to be Cognizable and Bailable - Power to make Rules. (6 Hours)

## **UNIT IV**

**The Sexual Harassment of Women at Workplace (Prevention, Prohibition And Redressal) Act, 2013 :** Definition of Sexual Harassment - The Prohibition of Sexual Harassment of Women at Workplace Act, 2013: Constitution of Internal Complaints Committee and Local Complaints Committee - Complaint under Sexual Harassment - Manner of Enquiry into Complaint - Inquiry Report - The Complaint Process - Duties of



Employer - Duties of District Officer - Penalty for Non-Compliance with the provisions of the POSH Act. (6 Hours)

## UNIT V

**Married Women Rights in India:** Definition of Marriage - Laws for Married Women's Rights in India - Multiple Roles of Women.

**The Dowry Prohibition Act, 1961:** Definition of Dowry -The Dowry Prohibition (Maintenance of Lists of Presents to the Bride and Bridegroom) Rules, 1985 - Powers of Dowry Prohibition Officers - Offences to be Cognizable-Burden of Proof in Certain Cases - Penalty for giving or taking Dowry.

(6 Hours)

17<sup>th</sup> Academic Council Meeting 31.01.2023

## SELF STUDY FOR ASSIGNMENT

1. Case laws related to Women Protection
- 2 .Recent Amendments for Women Protection\

## TEXT BOOK

1. Study Material Prepared by the Course Teacher
2. Sanjiv Narang (2021). *Laws for Women in India: Critical laws that every women should know in India*, First Edition, Self Published.

## REFERENCE BOOKS

1. Paras Diwan, Peeyushi Diwan (2016). *Modern Hindu Law (Codified and Uncodified)*, Ninth Edition ,Haryana: Allahabad Hindu Agency.

| Course Code<br>22UCPN31 | PO1 |     | PO2 | PO3 |     | PO4 |     | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                         | PSO | PSO | PSO | PSO | PSO | PSO | PSO | PSO | PSO | PSO |
|                         | 1.a | 1.b | 2   | 3.a | 3.b | 4.a | 4.b | 5   | 6   | 7   |
| CO1                     | H   | L   | L   | H   | L   | L   | L   | L   | L   | L   |
| CO2                     | H   | L   | M   | H   | L   | L   | L   | L   | L   | L   |
| CO3                     | H   | L   | L   | H   | L   | L   | L   | L   | L   | L   |
| CO4                     | H   | L   | H   | H   | L   | L   | L   | L   | -   | -   |
| CO5                     | H   | L   | L   | H   | L   | L   | L   | L   | -   | -   |

Dr. A. Aruna Devi  
Head of the Department

Dr. G.Balasaraswathi  
Course Designer



**V.V.VANNIAPERUMAL COLL** 17<sup>th</sup> Academic Council Meeting 31.01.2023  
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**VIRUDHUNAGAR - 626 001**  
**B.Com. Professional Accounting**  
(2023-24 onwards)

|                                |                          |                |                |
|--------------------------------|--------------------------|----------------|----------------|
| Semester IV                    | <b>BASIC LABOUR LAWS</b> | Hours/Week: 2  |                |
| Non – Major<br>Elective Course |                          | Credits: 2     |                |
| Course Code<br>22UCPN41        |                          | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, the students will be able to

- CO1 : state the basic concepts relating to labour laws. [K1]
- CO2 : explain the essential elements, applicability and non- applicability of various Acts. [K2]
- CO3 : describe the quantum of contributions to the fund and the claim procedure of various Acts. [K2]
- CO4 : apply the provisions relating to Factories Act, Employees Provident Fund Act, Employee State Insurance Act and Minimum Wages Act for the welfare of the employees. [K3]
- CO5 : apply the legal provisions regarding procedure of claims in real life situation [K3]

### UNIT I

**Factories Act, 1948:** Introduction – Important Definitions – Welfare Measures: Health - Safety – Welfare - Working hours - Employment of young person - Annual leave with wages (6 Hours)

**UNIT II**

**Employees Provident Fund and Miscellaneous Provisions Act, 1952:** Introduction – Schemes – Applicability – Non- Applicability - Employees’ Provident Fund Scheme- Employees’ Pension Scheme - Employees’ Deposit Linked Insurance Scheme - Contributions. (6 Hours)

**UNIT III**

**Employees State Insurance Act, 1948:** <sup>17<sup>th</sup> Academic Council Meeting 31.01.2023</sup> Introduction ~~Object~~ <sup>Applicability</sup> Important Definitions - Employees’ State Insurance Incorporation - Employees’ State Insurance Fund – Purposes – Contributions – Benefits. (6 Hours)

**UNIT IV**

**Minimum Wages Act, 1948:** Introduction - Object – Applicability - Important Definitions – Fixing of Minimum Rate of Wages – Overtime – Night Shift – Claims. (6 Hours)

**UNIT V**

**Payment of Gratuity Act, 1972 :** Introduction – Objective – Important Definitions – Payment of Gratuity – Forfeiture of Gratuity – Amount and Application of Gratuity – Mode of Payment – Recovery of Gratuity. (6 Hours)

**SELF STUDY FOR ASSIGNMENT**

1. Penalties for Contravention of Provisions of Factories Act
2. Provisions of Maternity Benefits Act, 2017

**TEXT BOOK**

1. Study Material Prepared by the Course Teacher.
2. Srivastava, S.C. (2020). *Industrial Relations and Labour Laws*, Vikas Publishing House Pvt Ltd., New Delhi.

**REFERENCE BOOKS**

1. <https://icmai.in/upload/Students/Syllabus2016/Inter/Paper-6-Feb-2022.pdf>

|  |     |     |     |     |     |     |     |
|--|-----|-----|-----|-----|-----|-----|-----|
|  | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|--|-----|-----|-----|-----|-----|-----|-----|

| Course Code<br>22UCPN41 | PSO<br>1.a | PSO<br>1.b | PSO<br>2 | PSO<br>3.a | PSO<br>3.b | PSO<br>4.a | PSO<br>4.b | PSO<br>5 | PSO<br>6 | PSO<br>7 |
|-------------------------|------------|------------|----------|------------|------------|------------|------------|----------|----------|----------|
| CO1                     | H          | L          | L        | H          | L          | L          | L          | L        | L        | L        |
| CO2                     | H          | L          | L        | H          | L          | L          | L          | L        | L        | L        |
| CO3                     | H          | L          | L        | H          | L          | L          | L          | L        | L        | L        |
| CO4                     | H          | L          | L        | H          | L          | L          | L          | L        | L        | L        |
| CO5                     | H          | L          | L        | H          | L          | L          | L          | L        | L        | L        |

Dr. A. Aruna Devi  
Head of the Department

Dr. D. Jeya priya  
Course Designer



## V.V.VANNIAPERUMAL COLLEGE FOR WOMEN

(Belonging to Virudhunagar Hindu Nadars)

An Autonomous Institution Affiliated to Madurai 17<sup>th</sup> Academic Council Meeting 31.01.2023  
Re-accredited with 'A' Grade (3<sup>r</sup>)

**VIRUDHUNAGAR - 626 001**

**B.B.A.**

**(2020 -21 onwards)**

|                                |                            |                |                |
|--------------------------------|----------------------------|----------------|----------------|
| Semester III                   | <b>BUSINESS MANAGEMENT</b> | Hours/Week: 2  |                |
| Non Major Elective<br>Course-1 |                            | Credits: 2     |                |
| Course Code<br><b>20UBAN31</b> |                            | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, the students will be able to

CO1: identify the areas in application of management concepts. [K1]

CO2: describe the concepts of management. [K1]

CO3: classify the managerial functions at various levels of management. [K2]

CO4: demonstrate the importance of various functions in management. [K3]

CO5: use the management concepts in managerial decision making. [K3]

### UNIT I

Management – Meaning and Definition – Levels of management – Management as Science – Management as an Art – Management as a Profession – Functions of Management. (6 Hours)

### UNIT II

Planning – Importance of Planning – Steps in Planning – Formal Vs Informal  
 Planning – Limitations of Planning – Steps to Make Planning Effective. (6 Hours)

### UNIT III

Organizing – Meaning and Definition, Organizational Structure – Different types -  
 Span of Control – Factors Governing the Span of Control. (6 Hours)

### UNIT IV

Leadership – Meaning and definition – Types of leadership and qualities required for  
 good leader. Decision making – Meaning – Types of decision. (6 Hours)

### UNIT V

Communication - Meaning and definition - Process of communication - Barriers of  
 communication and methods for overcoming the barriers. (6 Hours)

### SELF STUDY FOR ASSIGNMENT

1. Qualities of leader
2. Types of communication

### TEXT BOOK

Kumkum Mukherjee (2009). *Principles of Management*, Tata McGraw Hill  
 Education Private Limited,

### REFERENCE BOOKS

1. Jayasankar, J. (2015). *Principles of Management*, Chennai:  
 Margham Publications, 2<sup>nd</sup> Edition.
2. Prasad, L.M. (2015). *Principles and Practice of Management*, New Delhi: Sultan  
 Chand & Sons, 9<sup>th</sup> Edition.

| Course Code<br>20UBAN31 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | H   | H   | L   | H   | L   | H   | L   |
| CO2                     | H   | H   | L   | H   | L   | H   | L   |
| CO3                     | H   | H   | M   | H   | L   | H   | L   |
| CO4                     | H   | H   | L   | H   | L   | H   | L   |
| CO5                     | H   | H   | L   | H   | L   | H   | L   |

Tmt.P.Suganthi  
Head of the Department

Curriculum for Non Major Elective Courses

Tmt.C.Rajalakshumi  
Course Designer



## V.V.VANNIAPERUMAL COLLEGE FOR WOMEN

(Belonging to Virudhunagar Hindu Nadars)

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Re-accredited with 'A' Grade (3<sup>rd</sup> Cycle) by NAAC

**VIRUDHUNAGAR - 626 001**

**B.B.A.**

**(2020-21 onwards)**

|                                |                         |                |                |
|--------------------------------|-------------------------|----------------|----------------|
| Semester IV                    | <b>ENTREPRENEURSHIP</b> | Hours/Week: 2  |                |
| Non Major Elective Course-2    |                         | Credits: 2     |                |
| Course Code<br><b>20UBAN41</b> |                         | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, the students will be able to

CO1: recognize the business environment in order to identify business opportunities to become an entrepreneur. [K1]

CO2: identify the factors affecting entrepreneurial growth of entrepreneur. [K1]

CO3: estimate the investment cost to identify the funding agencies for the entrepreneurial development which improves the qualities of an entrepreneur. [K2]

CO4: describe the various development programs for entrepreneurship. [K2]

CO5: interpret their own business plan which helps them to identify the problems as a women entrepreneur. [K3]

### UNIT I

Entrepreneurship – Meaning - Role of Entrepreneurs – Qualities of an Entrepreneur.

(6 Hours)

**UNIT II**

Factors Affecting Entrepreneurial Growth – Economic Factors – Non economic Factors – Social Factors – Cultural Factors – Personality Factors. (6 Hours)

**UNIT III**

Preparation of Business Plan – Funding Agencies for Business - Government and Non Government - Social Entrepreneurship. (6 Hours)

**UNIT IV**

Entrepreneurship Development Programmes – Meaning – Importance – Objectives – types of EDPs – Phases and evaluation of EDPs. (6 Hours)

**UNIT V**

Women entrepreneurs – Functions – Qualities – Growth and development of women entrepreneurship – Problems of women entrepreneurs. (6 Hours)

**SELF STUDY**

1. Types of Entrepreneurs
2. Psychological factors affecting Entrepreneurial Growth

**TEXT BOOK**

Saravanavel, P. (2010). *Entrepreneurial Development*. New Delhi : S.Chand & Co.

**REFERENCE BOOKS**

1. Sekar, P.C. (2012). *Entrepreneurship and Management of Small Business*. New Delhi : Tata McGraw Hill Publishers.
2. Sundaram, K.P.. (2011). *Entrepreneurship*. Mumbai: Himalaya Publishing House.
3. Rengarajan. (2011). *Entrepreneurship Development*. Chennai : Prentice Hall of India.

| Course Code<br>20UBAN41 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | H   | L   | M   | L   | L   | M   | L   |
| CO2                     | M   | L   | M   | L   | H   | M   | M   |

|     |   |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|---|
| CO3 | M | H | M | M | H | L | M |
| CO4 | H | H | M | H | M | M | L |
| CO5 | M | H | M | H | H | L | L |

Dr.P.Suganthi  
Head of the Department

Mrs.C.Revathi  
Course Designer



## V.V.VANNIAPERUMAL COLLEGE FOR WOMEN

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**VIRUDHUNAGAR - 626 001**

### B.Sc. MATHEMATICS (Aided & SF) (2020-23 only)

|                                |                              |                |                |
|--------------------------------|------------------------------|----------------|----------------|
| Semester III                   | <b>QUANTITATIVE APTITUDE</b> | Hours/Week: 2  |                |
| Non Major Elective Course - 1  |                              | Credits: 2     |                |
| Course Code<br><b>20UMTN31</b> |                              | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, the students will be able to

CO1: relate the real life situations in the field of aptitude problems. [K1]

CO2: explain the concepts of problems on numbers, ages, ratio and proportion, calendar and permutation & combination. [K2]

CO3: express the practical problem using the principle of mathematics and interpret the results. [K2]

CO4: apply the knowledge gained in Aptitude to find solution of day to day problems. [K3]

CO5: solve the numerical aptitude problem using analytical ability and computational skills. [K3]

### UNIT I

Numbers (6 Hours)

### UNIT II

Problems on Ages (6 Hours)



| UNIT                          | Course Code | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | III       |
|-------------------------------|-------------|-----|-----|-----|-----|-----|-----|-----|-----------|
| Ratio                         | 20UMTN31    |     |     |     |     |     |     |     | and       |
| Proportion                    | CO1         | H   | M   | H   | H   | L   | -   | -   |           |
|                               | CO2         | H   | M   | M   | H   | L   | -   | -   |           |
|                               | CO3         | H   | L   | H   | H   | L   | -   | -   |           |
| (6 Hours)                     | CO4         | H   | M   | H   | H   | L   | -   | -   |           |
| UNIT                          | CO5         | H   | M   | H   | H   | M   | -   | -   | IV        |
| Calendar                      |             |     |     |     |     |     |     |     | (6 Hours) |
| UNIT V                        |             |     |     |     |     |     |     |     |           |
| Permutations and Combinations |             |     |     |     |     |     |     |     | (6 Hours) |

**TEXT BOOK**

Aggarwal, R.S.(7<sup>th</sup> Fully Revised Edition 2014). *Quantitative Aptitude*, S.Chand& Company Ltd.

Dr.A.Uma Devi  
Head of the Department

Dr.P.Geetha  
Course Designer



## V.V.VANNIAPERUMAL COLLEGE FOR WOMEN

(Belonging to Virudhunagar Hindu Nadars)

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**VIRUDHUNAGAR - 626 001**

**B.Sc. MATHEMATICS (Aided)**

(2023-24 onwards)

|                                |                                |                |                |
|--------------------------------|--------------------------------|----------------|----------------|
| Semester III                   | <b>QUANTITATIVE APTITUDE I</b> | Hours/Week: 2  |                |
| Non Major Elective Course - 1  |                                | Credits: 2     |                |
| Course Code<br><b>22UMTN31</b> |                                | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, the students will be able to

CO1: define the basic concepts needed for arithmetic calculations. [K1]

CO2: explain various techniques involved in aptitude problems. [K2]

CO3: explain the real life situations in the field of aptitude problems. [K2]

CO4: apply the acquired computational skills in solving problems. [K3]

CO5: find solutions to problems using shortcut methods. [K3]

### Unit I

Numbers (6 hours)

### Unit II

Problem on Numbers (6 hours)

### Unit III

Averages

(6 hours)

**Unit IV**

Percentage

(6 hours)

**Unit V**

Profit and Loss

(6 hours)

**TEXT BOOK**

Aggarwal, R.S. (7<sup>th</sup> Fully Revised Edition 2014). *Quantitative Aptitude*, S.Chand & Company Ltd.

**REFERENCE BOOKS**

1. Abhijit Guha-(6th reprint 2006) Quantitative Aptitude for Competitive Examinations-3rd edition, Tata McGraw Hill Publishing Company Ltd., New Delhi.
2. Ashish Aggarwal-(2014) Quick Arithmetic-1st edition, S.Chand & Company Ltd., New Delhi.

| Unit | Chapter                           | Section                     |
|------|-----------------------------------|-----------------------------|
|      | Section I<br>Arithmetical Ability |                             |
| I    | 1                                 | Examples only               |
| II   | 7                                 | Examples, Exercise (1 – 15) |
| III  | 6                                 | Examples, Exercise (1 – 15) |
| IV   | 10                                | Examples only               |
| V    | 11                                | Examples only               |

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| Course Code<br>22UMTN31 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | H   | M   | H   | H   | L   | -   | -   | -   |
| CO2                     | H   | M   | M   | H   | L   | -   | -   | -   |
| CO3                     | H   | L   | H   | H   | L   | -   | -   | -   |
| CO4                     | H   | M   | H   | H   | L   | -   | -   | -   |
| CO5                     | H   | M   | H   | H   | M   | -   | -   | -   |

Dr.A.Uma Devi

Miss.N.Malathi



## V.V.VANNIAPERUMAL COLLEGE FOR WOMEN

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**VIRUDHUNAGAR**

17<sup>th</sup> Academic Council Meeting 31.01.2023

### B.Sc. MATHEMATICS (SF)

(2023-24 onwards)

|                                |                         |                |                |
|--------------------------------|-------------------------|----------------|----------------|
| Semester III                   | <b>BASIC STATISTICS</b> | Hours/Week: 2  |                |
| Non Major Elective Course - 2  |                         | Credits: 2     |                |
| Course Code<br><b>22UMTN32</b> |                         | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

- define the basic concepts in statistics.[K1]
- understand the notion of statistical constants, principle of least squares & coefficient of correlation.[K2]
- explain various statistical methods and techniques in solving problems. [K2]
- apply statistical methods to solve the real life problems. [K3]
- apply statistical techniques and interpret the results.[K3]
- 

#### Unit I

##### Central Tendencies

Arithmetic Mean – Partition Values(Median Only) - Mode.

(6 Hours)

#### Unit II

##### Measures of Dispersion

## Measures of Dispersion: Quartile Deviation, Standard Deviation &amp; Mean Deviation

(Problems Only)

(6 Hours)

**Unit III****Curve fitting**

Principle of least squares-Fitting a Straight line-Fitting a second degree parabola

(Problems Only)

(6 Hours)

**Unit IV****Correlation**17<sup>th</sup> Academic Council Meeting 31.01.2023

Correlation -Rank correlation (Problems Only)

(6 Hours)

**Unit V****Index Numbers**

Index numbers- aggregate method - average of price relatives method-weighted index numbers : Laspeyre's, Paasche's index numbers & Fisher's index number only.

(6 Hours)

**Text Book :**Arumugam.S. (July 2013). *Statistics*, New Gamma Publishing House.

| Unit | Chapter | Sections/ Pages   |
|------|---------|---|
| I    | 2       | 2.1(Theorems without Proof),<br>2.2 (Problems in Median only ) &<br>2.3 |
| II   | 3       | 3.1(Theorems without Proof)   |
| III  | 5       | 5.1 (Problems Only)   |
| IV   | 6       | 6.1, 6.2 (Problems Only)  |
| V    | 9       | 9.1(I-A,I-B, II) (Problems Only)  |

**REFERENCE BOOKS:**

- 1.Dr. S.P.Gupta, (1969), *Statistical Methods*, Sultan Chand & Sons.
- 2.S.C.Gupta, V.K.Kapoor, (2001), *Elements of Mathematical Statistics*, Sultan Chand & Sons.

| Course | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|--------|-----|-----|-----|-----|-----|-----|-----|
|--------|-----|-----|-----|-----|-----|-----|-----|

| Code<br>22UMTN32 | PSO<br>1.a | PSO<br>1.b | PSO<br>2 | PSO<br>3.a | PSO<br>3.b | PSO<br>4.a | PSO<br>4.b | PSO<br>5 | PSO<br>6 | PSO<br>7 |
|------------------|------------|------------|----------|------------|------------|------------|------------|----------|----------|----------|
| CO1              | H          | H          | M        | H          | H          | H          | H          | M        | L        | L        |
| CO2              | H          | H          | M        | H          | H          | H          | H          | M        | L        | L        |
| CO3              | H          | H          | M        | H          | H          | H          | H          | M        | L        | L        |
| CO4              | H          | H          | M        | H          | H          | H          | H          | M        | L        | L        |
| CO5              | H          | M          | H        | H          | H          | H          | H          | M        | L        | L        |

Dr.A.UmaDevi  
Head of the Department

S.Swathi Sundari  
Course Designer



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**VIRUDHUNAGAR - 626 001**

**B.Sc. MATHEMATICS (Aided & SF)**  
**(2020 -23 only)**

|                                 |   |                |                |
|---------------------------------|---|----------------|----------------|
| Semester IV                     | <b>STATISTICS AND<br/>OPERATIONS RESEARCH</b> | Hours/Week:2   |                |
| Non Major Elective<br>Course -2 |   | Credits: 2     |                |
| Course Code<br><b>20UMTN41</b>  |   | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, students will be able to

CO1: identify the basic concepts of various measures of statistical problems and game theory and sequencing problems. [K1]

CO2: explain statistical datas using measures of central tendency, dispersion and index numbers. [K2]

CO3: illustrate their decision making skills in a competitive situation. [K2]

CO4: apply efficient computational techniques that are needed to solve real life problems. [K3]

CO5: estimate the value of the dependent variable for a given value of the independent variable using the fitted straight line. [K3]

### UNIT I

Statistics – Mean, Median, Mode – Standard Deviation.

(6 hours)

**UNIT II**

Curve Fitting: Straight line only. (4 hours)

**UNIT III**

Index numbers - calculation of indices using simple aggregate method and average of price relative methods-weighted index numbers- Laspeyre's and Paasche' index numbers - Fisher's index number. (6 hours)

**UNIT IV**

Games and strategies – Two person zero sum games - Basic terms - Maximin - Minmax principle - solution of 2 x 2 game without saddle point ( Theorems without proof). (7 hours)

**UNIT V**

Sequencing-Problem of Sequencing-Basic terms used in sequencing-Processing of n jobs through 2 machines (7 hours)

**TEXT BOOKS**

1. Arumugam.S. (July 2009). *Statistics*. New Gamma Publishing House.
2. Kanti Swarup, Gupta, P.K., & Man Mohan.(2006). *Operations Research*. Sultan Chand & Sons, Educational Publications.

| <b>TEXT BOOK 1</b> |                |   |
|--------------------|----------------|---|
| <b>Unit</b>        | <b>Chapter</b> | <b>Sections</b>   |
| I                  | II<br>III      | 2.1 (Theorems without proof)<br>2.2 (Omitting theorems, Quartiles, Deciles & Percentiles) and 2.3<br>3.1 (Theorems without proof) |
| II                 | V              | Full  |
| III                | IX             | 9.1   |
| <b>TEXT BOOK 2</b> |                |   |
| IV                 | XVII           | 17.2, 17.3, 17.4, 17.5 (Problems only)  |
| V                  | XII            | 12.2, 12.3, 12.4 (Problems only)  |

|                         |     |     |     |     |     |     |     |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| Course Code<br>20UMTN41 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|

|     |   |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|---|
| CO1 | H | - | H | H | - | - | - |
| CO2 | H | - | H | M | - | L | - |
| CO3 | M | L | H | - | - | L | - |
| CO4 | H | L | M | M | - | L | - |
| CO5 | L | - | M | L | - | L | - |

Dr.A.Uma Devi  
Head of the Department

Dr.P.Sooriyakala  
Course Designer



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**VIRUDHUNAGAR - 626 001**

**B.Sc. MATHEMATICS (Aided)**

(2023-24 onwards)

|                                |                                 |                |                |
|--------------------------------|---------------------------------|----------------|----------------|
| Semester IV                    | <b>QUANTITATIVE APTITUDE II</b> | Hours/Week: 2  |                |
| Non Major Elective Course - 3  |                                 | Credits: 2     |                |
| Course Code<br><b>22UMTN41</b> |                                 | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, the students will be able to

CO1: retrieve the basic concepts in arithmetic problems. [K1]

CO2: explain the application of Mathematics in real life. [K2]

CO3: explain the various techniques involved in aptitude problems. [K2]

CO4: apply their analytical ability and computational skills in solving problems. [K3]

CO5: find solutions to problems using shortcut methods. [K3]

#### Unit I

Problem on Ages (6 hours)

#### Unit II

Ratio and Proportion (6 hours)

#### Unit III

Simple Interest (6 hours)



**Unit IV**

Calendar (6 hours)

**Unit V**

Permutations and Combinations (6 hours)

**TEXT BOOK**

Aggarwal, R.S. (7<sup>th</sup> Fully Revised Edition 2014). *Quantitative Aptitude*, S. Chand & Company Ltd.

**REFERENCE BOOKS**17<sup>th</sup> Academic Council Meeting 31.01.2023

1. Abhijit Guha-(6th reprint 2006) *Quantitative Aptitude for Competitive Examinations-5th* edition, Tata McGraw Hill Publishing Company Ltd., New Delhi.
2. Ashish Aggarwal-(2014) *Quick Arithmetic-1st* edition, S.Chand & Company Ltd., New Delhi.

| Unit | Chapter                           | Section                     |
|------|-----------------------------------|-----------------------------|
|      | Section I<br>Arithmetical Ability |                             |
| I    | 8                                 | Examples, Exercise (1 – 20) |
| II   | 12                                | Examples, Exercise (1 – 30) |
| III  | 21                                | Examples, Exercise (1 – 20) |
| IV   | 27                                | Full                        |
| V    | 30                                | Full                        |

| Course Code<br>22UMTN41 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | H   | M   | H   | H   | L   | -   | -   | -   |
| CO2                     | H   | M   | M   | H   | L   | -   | -   | -   |
| CO3                     | H   | L   | H   | H   | L   | -   | -   | -   |
| CO4                     | H   | M   | H   | H   | L   | -   | -   | -   |
| CO5                     | H   | M   | H   | H   | M   | -   | -   | -   |

Dr.A.Uma Devi  
Head of the Department

Miss.N.Malathi  
Course Designer



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**VIRUDHUNAGAR - 626 001**

**B.Sc. MATHEMATICS (SF)**

(2023-24 onwards)

|                                |                            |                |                |
|--------------------------------|----------------------------|----------------|----------------|
| Semester IV                    | <b>OPERATIONS RESEARCH</b> | Hours/Week: 2  |                |
| Non Major Elective Course - 4  |                            | Credits: 2     |                |
| Course Code<br><b>22UMTN42</b> |                            | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, the learners will be able to

- explain the basic concepts in LPP, transportation and assignment problem, game theory and sequencing problem.[K1]
- understand the techniques used to solve the problems in OR . [K2]
- express real life problems into mathematical models. [K2]
- apply efficient computational techniques and algorithms that are needed to solve optimization problems. [K3]
- apply the OR concept to the real life situation and find solutions.[K3]

### Unit I

#### Linear Programming Problems

Graphical Method-Optimizing Objective Function.

(6 Hours)

**Unit II****Transportation Problems**

Mathematical Formulation of Transportation Problem(Problems Only)

(6 Hours)

**Unit III****Assignment Problems**

Mathematical Formulation of an Assignment problem-Solution to Assignment problem(Minimization Problems Only)

(6 Hours)

**Unit IV**

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**Games and Strategies**

Two-Person Zero-Sum Games – Some Basic Terms-The Maximin-Minmax Principle-Games Without Saddle Points-Mixed Strategies –Graphic Solution of 2 x n and m x 2 Games.

(6 Hours)

**Unit V****Sequencing Problem**

Problem of Sequencing-Basic Terms Used in Sequencing-Processing n Jobs through Two Machines.

(6 Hours)

**Text Books :**

- 1.Arumugam Isaac (June 2012),*Topics in Operations Research Linear Programming*, New Gamma Publishing House.
2. KantiSwarup, Gupta P.K, Man Mohan(Reprint 2014) , *Operations Research*, Sultan Chand & Sons.

| Unit | Text Book | Chapter | Sections/ Pages                                    |
|------|-----------|---------|--|
| I    | 1         | 3       | 3.4 (Problems Only)                                |
| II   |           | 4       | 4.1(Problems Only)                                 |
| III  |           | 5       | 5.1,5.2  |
| IV   | 2         | 17      | 17.2, 17.3, 17.4, 17.5, 17.6(Sample Problems only) |
| V    |           | 12      | 12.2, 12.3, 12.4(Sample Problems only)             |

**REFERENCE BOOKS:**

1.Gupta. P. K and Man Mohan (2003), *Problems in Operations Research(Methods & solutions)*,Sultan Chand & Sons, Educational Publishers, New Delhi.

2.Sharma. S. D (2009), *Operations research*, KedarNarth Ram Nath , New Delhi.

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| Course Code | PO1     |         | PO2   | PO 3    |         | PO 4    |         | PO5   | PO6   | PO7   |
|-------------|---------|---------|-------|---------|---------|---------|---------|-------|-------|-------|
|             | PSO 1.a | PSO 1.b | PSO 2 | PSO 3.a | PSO 3.b | PSO 4.a | PSO 4.b | PSO 5 | PSO 6 | PSO 7 |
| 22UMTN42    |         |         |       |         |         |         |         |       |       |       |
| CO1         | H       | -       | M     | -       | H       | -       | M       | -     | L     | -     |
| CO2         | H       | -       | M     | -       | H       | -       | M       | -     | L     | -     |
| CO3         | H       | -       | M     | -       | H       | -       | M       | -     | L     | -     |
| CO4         | H       | -       | M     | -       | H       | -       | M       | -     | L     | -     |
| CO5         | H       | -       | M     | -       | H       | -       | M       | -     | L     | -     |

Dr.A.Uma Devi  
Head of the Department

K.Muthulakshmi  
Course Designer



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**VIRUDHUNAGAR - 626 001**

**B.Sc. PHYSICS**  
**(2020 -2021 onwards)**

|                                |                                 |                |                |
|--------------------------------|---------------------------------|----------------|----------------|
| Semester III                   | <b>PHYSICS IN EVERYDAY LIFE</b> | Hours/Week: 2  |                |
| NMEC 1                         |                                 | Credits: 2     |                |
| Course Code<br><b>20UPHN31</b> |                                 | Internal<br>40 | External<br>60 |

**COURSE OUTCOMES**

On completion of the course, students will be able to

- CO1: explain the principles of home appliances used in daily life. [K1]  
 CO 2: describe the construction and working of electrical appliances. [K2]  
 CO 3: discuss the physical parameters related to electrical appliances. [K2]  
 CO 4: apply the learned concepts to solve problems. [K3]  
 CO 5: make use of the related concepts for the applications of various electronic gadgets. [K3]

**UNIT I**

**General Appliances:**

DC - AC - Choke coil - Fuse - Lamp circuit - Transformer. (6 Hours)

**UNIT II**

**Kitchen:**

Pressure cooker - Microwave oven - Toaster - Mixer grinder - Grinder - Refrigerator.

(6 Hours)

### UNIT III

#### Washroom:

Geyser - Solar water heater - Vacuum cleaner - Water purifier - Washing machine.

(6 Hours)

### UNIT IV

#### Living Room:

Fan - Remote controller - Tube light - CFL - LED - TV.

(6 Hours)

### UNIT V

#### Office:

Fax machine - Printer - Photocopier - Inverter - Air conditioner.

(6 Hours)

### TEXT BOOKS

Material - Prepared by the Department of Physics

### REFERENCE BOOKS

1. Jose Robin, G., and Ubald Raj, A. (2016). *Maintenance of Electrical Equipment*, Marthandam: Indira Publication.
2. How things work volume 1 and 2.

### REFERENCE SITE

[www.How stuffs work.com](http://www.How%20stuffs%20work.com).

| Course Code<br>20UPHN31 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | H   | L   | L   | L   | M   | L   | L   |
| CO2                     | H   | M   | M   | L   | L   | -   | -   |
| CO3                     | H   | M   | M   | M   | L   | -   | -   |
| CO4                     | H   | M   | H   | M   | M   | -   | -   |
| CO5                     | H   | M   | M   | M   | M   | M   | -   |

Dr.K.Uma Maheswari  
Head of the Department

Dr.P.Malliga  
Course Designer



## V.V.VANNIAPERUMAL COLLEGE FOR WOMEN

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**VIRUDHUNAGAR - 626 001**

**B.Sc. PHYSICS**

**(2023 -2024 onwards)**

|                                |                                     |                |                |
|--------------------------------|-------------------------------------|----------------|----------------|
| Semester III                   | <b>PHYSICS IN EVERYDAY LIFE - I</b> | Hours/Week: 2  |                |
| NMEC 1                         |                                     | Credits: 2     |                |
| Course Code<br><b>22UPHN31</b> |                                     | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, the students will be able to

CO1: explain the laws and concepts behind the basic physics [K1]

CO2: describe the working principle of various appliances used in daily life [K2]

CO3: discuss the physical parameters related to the appliances [K2]

CO4: illustrate the practical applications of mechanics and properties of matter [K3]

CO5: demonstrate the applications of electrostatics, electricity and magnetostatics [K3]

### Unit I

#### Mechanics

Motion, Force, Newton's laws & its applications – circular motion with examples - washing machine - gravitational force - Kepler's law of planetary motion - satellites - geostationary satellites - polar satellites - communication satellites. (6 Hours)

### Unit II

#### Properties of matter

Three states of matter – binding forces - fluid pressure and thrust – applications – Pascal law – hydraulic lift - Archimedes principle - submarine – surface tension – capillary action – Bernoulli’s principle – aeroplane. (6 Hours)

### Unit III

#### Electrostatics

Types & Properties of charges – Coulomb’s law – photocopier - laser printer - electric field – electric potential – principle of capacitor – electric fan – tube light - action of points - lightning arrester. (6 Hours)

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### Unit IV

#### Electricity

DC - AC - Ohm’s law - simple electric circuit – domestic electric circuit – overloading and short circuiting - earthing - electric power – consumption of electrical energy - electrical safety. (6 Hours)

### Unit V

#### Magnetostatics

Magnetic field - magnetic field lines —properties of magnetic lines of force – earth’s magnetic field – magnetic materials – Loudspeaker – magnetic levitation – hard disk. (6 Hours)

### TEXT BOOK

- 1.Murugesan, R. (2014). *Allied Physics*, New Delhi: Sultan Chand & Company Private Ltd.
- 2.Jose Robin, G. and Ubald Raj, A. (2013). *Electricity and Magnetism*, Indira Publication, Marthandam.

### REFERENCE BOOKS

- 1.Murugesan, R. (2016) Revised edition. *Properties of Matter*, New Delhi: Sultan Chand & Company Private Ltd.
- 2.Haliday Resnick, and Walker, J. 6<sup>th</sup> edition, *Fundamentals of Physics*, New York, USA: Wiley Publications.

| PO/CO<br>Course Code<br>(22UPHN31) | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|------------------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO 1                               | H   | L   | L   | L   | M   | L   | L   |
| CO 2                               | H   | M   | M   | L   | L   | -   | -   |
| CO 3                               | H   | M   | M   | M   | L   | -   | -   |



|      |   |   |   |   |   |   |   |
|------|---|---|---|---|---|---|---|
| CO 4 | H | M | H | M | M | - | - |
| CO 5 | H | M | M | M | M | M | - |

Dr.A.Azhagu Parvathi  
Head of the Department

Dr.I.Rathinamala  
Course Designer



## V.V.VANNIAPERUMAL COLLEGE FOR WOMEN

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**VIRUDHUNAGAR - 626 001**

**B.Sc. PHYSICS**

**(2020 -2021 onwards)**

|                                 |  |                |                |
|---------------------------------|--|----------------|----------------|
| Semester IV                     | <b>FUNDAMENTALS OF<br/>ELECTRONICS</b> | Hours/Week: 2  |                |
| Non Major Elective<br>Course -2 |  | Credits: 2     |                |
| Course Code<br><b>20UPHN41</b>  |  | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, students will be able to

CO1: explain the basic concepts of passive and active components, amplifiers, oscillators and needs for modulation. [K1]

CO2: discuss the functions of active and passive electronic components, op-amp, oscillators, AM & FM. [K2]

CO3: determine the characteristics of pn junction & Zener diodes and transistor. [K2]

CO4: demonstrate the applications of active & passive electronic components, amplifiers and op-amps. [K3]

CO5: apply the learned concepts to solve related problems in active & passive electronic components, amplifiers, oscillators, op-amps and modulation. [K3]

### UNIT I

#### Passive Circuit Elements:

Resistors, resistor types - metal film resistors, variable resistors, color-code resistors-inductor - inductance of an inductor- variable inductors, reactance and impedance offered by a wire - capacitors - capacitance - types of capacitors, fixed, variable capacitors.

## UNIT II

### Semiconducting Devices:

PN junction diode—biasing a p-n junction: forward bias – reverse bias – the p-n junction diode action – experiment to study the volt-ampere characteristics of a p-n junction diode – reverse voltage breakdown – Zener diode – I-V characteristics of Zener diode – uses of Zener diode – power supply – Zener diode as voltage regulator. (6 Hours)

## UNIT III

### Transistor

Junction transistor –biasing the transistor for active region - transistor action—relation between  $\alpha$  and  $\beta$  of a transistor – the three modes of transistor connection – relation between  $\alpha$ ,  $\beta$ ,  $\gamma$  – transistor characteristics in common emitter mode –transistor amplifier-oscillators – Barkhausen criterion - Hartely oscillator. (6 Hours)

## UNIT IV

### Operational Amplifiers

Amplifier – differential amplifier – operational amplifier-characteristics of an ideal op-amp – pin diagram – open loop operation – closed loop operation: positive and negative feedback–inverting operational amplifier – summing amplifier –op-amp as integrator – op-amp as differentiator. (6 Hours)

## UNIT V

### Modulation

Modulation – the need for modulation - different kinds of modulation - AM modulator circuit with transistor - limitations of amplitude modulation – demodulation – frequency modulation – advantages of frequency modulation – FM detection – Comparison of F.M and A.M. (6 Hours)

### TEXT BOOK

1.UbaldRaj, A., and Jose Robin, G. (2008). *Analog Electronics*, Marthandam: Indira Publications & Study material

### REFERENCE BOOKS

1.Theraja, B.L. (2014).*Basic Electronics Solid State*, Revised Edition, S.Chand& Company Ltd.

2.Ubald Raj, A., &Jose Robin, G. (1997).*Basic Electronics*, Edition, Indira Publications.

3.Sedha, R.S. (2008).*A Text book of Applied Electronics*, Revised Edition, S.Chand& Company Ltd.

| Course Code<br>20UPHN41 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | H   | H   | L   | M   | -   | -   | M   |
| CO2                     | H   | L   | M   | M   | -   | -   | -   |
| CO3                     | H   | M   | M   | M   | -   | -   | -   |
| CO4                     | H   | M   | L   | L   | -   | -   | -   |
| CO5                     | H   | M   | L   | L   | M   | L   | -   |

Dr.K.Uma Maheswari  
Head of the Department

Dr.I.Rathinamala  
Course Designer



## V.V.VANNIAPERUMAL COLLEGE FOR WOMEN

(Belonging to Virudhunagar Hindu Nadars)

An Autonomous Institution Affiliated to Madurai Kamaraj University, Madurai

Re-accredited with 'A' Grade (3<sup>rd</sup> Cycle) by NAAC

**VIRUDHUNAGAR - 626 001**

**B.Sc. PHYSICS**

**(2022 -2023 onwards)**

|                                 |  |                |                |
|---------------------------------|--|----------------|----------------|
| Semester IV                     | <b>FUNDAMENTALS OF<br/>ELECTRONICS</b> | Hours/Week: 2  |                |
| NMEC 2                          |  | Credits: 2     |                |
| Course Code<br><b>20UPHN41N</b> |  | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

CO1: explain the basic concepts of active and passive components, digital number system and logic gates [K1]

CO2: discuss the functions of active and passive components, logic gates and also the conversion of codes and number systems in digital electronics [K2]

CO3: determine the characteristics of pn junction & zener diode and transistor [K2]

CO4: illustrate the applications of semiconducting devices and transistor [K3]

CO5: demonstrate the applications of number systems and logic gates [K3]

### UNIT I

#### Passive Circuit Elements:

Resistors, resistor types - metal film resistors, variable resistors, color-code resistors-inductor - inductance of an inductor- variable inductors - capacitors - capacitance - types of capacitors, fixed, variable capacitors. (6 Hours)

### UNIT II

#### Semiconducting Devices:

PN junction diode—biasing a p-n junction: forward bias – reverse bias – the p-n junction diode action – experiment to study the volt-ampere characteristics of a p-n junction

diode – zener diode – I-V characteristics of zener diode – uses of zener diode – power supply – zener diode as voltage regulator. (6 Hours)

### UNIT III

#### Transistor

Junction transistor –biasing the transistor for active region - transistor action–relation between  $\alpha$  and  $\beta$  of a transistor – the three modes of transistor connection – relation between  $\alpha$ ,  $\beta$ ,  $\gamma$  – transistor characteristics in common emitter mode - oscillators – Barkhausen criterion. (6 Hours)

### UNIT IV

#### Number Systems

17<sup>th</sup> Academic Council Meeting 31.01.2023

Number systems in digital electronics – binary, decimal and hexadecimal numbers – binary addition and subtraction – binary coded decimal – Display devices. (6 Hours)

### UNIT V

#### Logic Gates

Digital circuits – logic gate – basic logic gates – AND gate - OR gate – NOT gate – Ex-OR gate – implementation of logic gates using NAND gate - implementation of logic gates using NOR gate. (6 Hours)

### TEXT BOOKS

1. Jose Robin, G. and Ubald Raj, A. (2008). *Analog Electronics*, Indira Publication, Marthandam.
2. Jose Robin, G. and Ubald Raj, A. (2014). *Digital Electronics*, Indira Publication, Marthandam.

### REFERENCE BOOKS

1. Theraja, B.L. (2014). *Basic Electronics Solid State*, Revised Edition, S.Chand & Company Ltd.
2. Ubald Raj, A., & Jose Robin, G. (1997). *Basic Electronics*, Edition, Indira Publications.
3. Sedha, R.S. (2008). *A Text book of Applied Electronics*, Revised Edition, S.Chand & Company Ltd.

| PO/CO<br>Course Code<br>(20UPHN41N) | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO 1                                | H   | H   | L   | M   | -   | -   | M   |

|      |   |   |   |   |   |   |   |
|------|---|---|---|---|---|---|---|
| CO 2 | H | L | M | M | - | - | - |
| CO 3 | H | M | M | M | - | - | - |
| CO 4 | H | M | L | L | - | - | - |
| CO 5 | H | M | L | L | M | L | - |

Dr.A.AzhaguParvathi  
Head of the Department

Dr.I.Rathinamala  
Course Designer



**V.V.VANNIAPERUMAL COLLEGE FOR WOMEN**  
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**VIRUDHUNAGAR - 626 001**  
**B.Sc. PHYSICS**  
(2023 -2024 onwards)

|                                |                                      |                |                |
|--------------------------------|--------------------------------------|----------------|----------------|
| Semester III                   | <b>PHYSICS IN EVERYDAY LIFE - II</b> | Hours/Week: 2  |                |
| NMEC 2                         |                                      | Credits: 2     |                |
| Course Code<br><b>22UPHN41</b> |                                      | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, the students will be able to

CO1: explain the laws and concepts behind the basic physics [K1]

CO 2: describe the construction and working of appliances used in daily life [K2]

CO 3: discuss the generation of electricity from various non-conventional energy sources [K2]

CO4: illustrate the applications of basic laws/concepts in electromagnetism, heat and number systems [K3]

CO5: demonstrate the applications of energy sources [K3]

### Unit I

#### Electromagnetism

Force on a current carrying conductor in a magnetic field - Fleming's left and right hand rule - electromagnetic induction - electric motor - electric generator - Faraday's law - Lenz law - transformer. (6 Hours)

### Unit II

**Heat**

Measurement of heat and temperature – clinical thermometer – heat transfer – effect of pressure on boiling point and melting point – pressure cooker – Joule’s heating effect thermostat – refrigerator - convection – land breeze – sea breeze. (6 Hours)

**Unit III**17<sup>th</sup> Academic Council Meeting 31.01.2023**Number Systems**

Number systems in digital electronics – binary, decimal and hexadecimal numbers – binary addition and subtraction – binary coded decimal – seven segment display. (6 Hours)

**Unit IV****Conventional Energy Sources**

Commercial energy sources - conventional sources of energy – nuclear energy: its merits and demerits – breeder reactor – merits, demerits and applications of coal - merits, demerits and applications of oil - merits, demerits and applications of natural gas. (6 Hours)

**Unit V****Non-conventional Energy Sources**

Renewable energy sources - solar energy - solar water heater – solar crop dryer - solar cookers – geothermal energy – geothermal power plant – windmill – Ocean Thermal Energy Conversion (OTEC). (6 Hours)

**TEXT BOOKS**

1. Jose Robin, G. and Ubald Raj, A. (2013). *Electricity and Magnetism*, Indira Publication, Marthandam.
2. Jose Robin, G. and Ubald Raj, A. (2014). *Digital Electronics*, Indira Publication, Marthandam.
3. Jose Robin, G. and Ubald Raj, A. (2014). *Energy Physics*, Indira Publication, Marthandam.

**REFERENCE BOOKS**

1. Murugesan, R. (2014). *Allied Physics*, New Delhi: Sultan Chand & Company Private Ltd.
2. Khan, B.H. (2009). *Non – Conventional Energy Resources*, Third Reprint. New Delhi: Tata McGraw-Hill Education Private Limited

|              |            |            |            |            |            |            |            |
|--------------|------------|------------|------------|------------|------------|------------|------------|
| <b>PO/CO</b> | <b>PO1</b> | <b>PO2</b> | <b>PO3</b> | <b>PO4</b> | <b>PO5</b> | <b>PO6</b> | <b>PO7</b> |
|--------------|------------|------------|------------|------------|------------|------------|------------|

| Course Code<br>(22UPHN41) |   |   |   |   |   |   |   |
|---------------------------|---|---|---|---|---|---|---|
| CO 1                      | H | H | L | M | - | - | M |
| CO 2                      | H | L | M | M | - | - | - |
| CO 3                      | H | M | M | M | - | - | - |
| CO 4                      | H | M | L | L | - | - | - |
| CO 5                      | H | M | L | L | M | L | - |

Dr.A.Azhagu Parvathi  
Head of the Department

Dr.R.Hepzi Pramila Devamani  
Course Designer



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**VIRUDHUNAGAR - 626 001**  
**B.Sc. CHEMISTRY**  
**(2020 -21 onwards)**

|                                |                             |                |                |
|--------------------------------|-----------------------------|----------------|----------------|
| Semester III                   | <b>INDUSTRIAL CHEMISTRY</b> | Hours/Week: 2  |                |
| Non Major Elective Course -1   |                             | Credits: 2     |                |
| Course Code<br><b>20UCHN31</b> |                             | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, the students will be able to

CO1: identify the chemistry of fertilizers, milk products, and fuels, polymers, cleaning agents, cements, insecticides and pesticides. [K1]

CO2: classify the different types and composition of milk products, plant nutrients, pesticides, polymers, cleaning agents, fuels and raw materials of cement. [K2]

CO3: discuss on the composition and uses of dairy products, plant nutrients, polymers, fuels, manufacture of soap, detergents and cement. [K2]

CO4: illustrate on the composition and effect of heating milk, fertilizers, pesticides and its health hazards, preparation and uses of polymers, manufacture of cement, soap and detergents with its effect in water resources, different fuels and air pollution by automobiles with control measures. [K3]

CO5: predict about the types, composition, preparation, uses, effects and remedies for dairy products, fertilizers, pesticides, polymers, cleaning agents, fuels and cement with different industries in India. [K3]

### UNIT I



**Food Industry** – Introduction - Scope – Various type of chemical industries – Fertilizers – Polymer – Cement – Petrochemical – Pharma chemicals - Milk and Milk Products - Composition of Milk, Flavour and aroma of Milk, Physical properties of milk. Effect of heat on Milk - Milk products - cream, butter, ice cream, milk powder. (6 Hours)

## UNIT II

**Agricultural Industry** – Nutrients for plant – Major and minor nutrients – Role of NPK – Urea – Super Phosphate – Mixed fertilizers – Fertilizer manufacturing units in India – Insecticides and pesticides – DDT. Health hazards of pesticides. (6 Hours)

## UNIT III

**Polymer Industry** – Natural and synthetic rubbers – examples for synthetic rubber – applications – Plastic – Bakelite – Nylon 66 – PVC – Uses (Structure not necessary).

**Soap and Detergents:** Manufacture of Soap and Detergents. Cleansing action of soap. Problems of Detergents as waste water in water resources. (6 Hours)

## UNIT IV

**Petrochemical industry** - Crude oil – Chemicals from crude oil – Natural gas – LPG Aviation fuel – Fuels used in locomotives – trucks and ships – Fuels used in light commercial vehicles – Air pollution problems due to Automobiles and its control (6 Hours)

## UNIT V

**Cement Industry:** Introduction – Raw materials of cement – Types of cement – manufacturing process of cement - setting of cement – cement industries in India. (6 Hours)

## TEXT BOOKS

1. Sharma, B.K. (2008). *Industrial Chemistry*, 1<sup>st</sup> Edition. Meerut: GOEL Publishing House.
2. Bagavathi Sundari. K. (2006). *Applied Chemistry*, 1<sup>st</sup> Edition. Chennai: MJP Publishers.

## REFERENCE BOOKS

1. Aya Shree Ghosh, (2013). *Fundamental Concepts of Applied Chemistry*, 1<sup>st</sup> Edition.

New Delhi:

2.S.Chand& Company Ltd, Small scale Industries manual from District Industrial centre. (DIC)

| Course Code<br>20UCHN31 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | M   | M   | L   | M   | L   | M   | M   |
| CO2                     | M   | L   | L   | M   | M   | L   | M   |
| CO3                     | L   | M   | M   | L   | M   | L   | L   |
| CO4                     | L   | L   | L   | -   | L   | L   | L   |
| CO5                     | L   | -   | L   | L   | L   | L   | L   |

Mrs. M. Dhanalakshmi  
Head of the Department

Dr. C. Vidya Rani  
Course Designer



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**VIRUDHUNAGAR - 626 001**

**B.Sc. CHEMISTRY**

**(2020 -21 onwards)**

|                                  |                                       |                |                |
|----------------------------------|---------------------------------------|----------------|----------------|
| Semester IV                      | <b>DRUGS AND NATURAL<br/>PRODUCTS</b> | Hours/Week: 2  |                |
| Non Major Elective<br>Course - 2 |                                       | Credits: 2     |                |
| Course Code<br><b>20UCHN41</b>   |                                       | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, the students will be able to

- CO1: define the various drug terminologies, antibiotics, chemotherapy agents, vitamins, hormones and natural products. [K1]
- CO2: classify the drugs studies, antibiotics, chemotherapeutic agents, vitamins, hormones and natural products. [K2]
- CO3: discuss the pharmaceutical terminologies, antibiotics drug action and effects, types of therapeutic agents, effects and uses of vitamins, hormones and natural products. [K2]
- CO4: interpret the pharmaceutical terms, activity and effects of bacterial inflectional drugs, action of different therapeutic agents, biological importance and deficiency of vitamins and hormones, medicinal significance of terpenoids and alkaloids. [K3]
- CO5: predict the drug terminologies, drug activity and effects of antibiotics nature and types of therapeutic agents, effects and importance of vitamins and steroids, medicinal uses of natural products. [K3]

### UNIT I

Importance of Drugs –terminologies – Pharmacy – Pharmacology – Pharmacodynamics – Pharmacokinetics – Molecular Pharmacology – Pharmacophore – antimetabolites – actinomycetes - Bacteria, Virus, fungi –mutation. (6 Hours)

### UNIT II

Antibiotics – Definition-classification-uses of Ampicillin, streptomycin, Erythromycin, tetracycline, rifomycin (structure not necessary) – drug action and side effects. (6 Hours)

### UNIT III

Chemotherapy-introduction-classification-Definition and examples of Antipyretics- Analgesics - Anti-inflammatory agents - Sulpha drugs-Antimalarials-Antiseptics (structure not necessary) (6 Hours)

### UNIT IV

Vitamin – Classification – Sources and deficiency of various vitamins.(structure not necessary) Steroids – Classification- biological importance of Male sex hormone, Female sex hormone. (structure not necessary) (6Hours)

### UNIT V

Terpenoids: Definition – classification – occurrence – uses of citral, geraniol, limonene, menthol and zingiberene.(structure not necessary)

Alkaloids: Definition – classification - occurrence – medicinal uses of quinine, atropine, morphine,nicotine and papavarine.(structure not necessary) (6 Hours)

### TEXT BOOKS

- Jayashree Ghosh, (2012). *A Text Book of Pharmaceutical Chemistry*, 1<sup>st</sup> Edition. New Delhi: S.Chand & Company Ltd.
- Jain, M.K. & Sharma, S.C. (2016). *Modern Organic Chemistry*, 1<sup>st</sup> Edition. New Delhi: Vishal Publishing Co.

| Course Code<br>20UCHN41 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | M   | M   | L   | L   | M   | M   | L   |
| CO2                     | L   | L   | M   | M   | L   | L   | M   |
| CO3                     | M   | M   | L   | L   | L   | M   | L   |
| CO4                     | M   | L   | L   | L   | -   | L   | L   |
| CO5                     | L   | L   | L   | -   | L   | L   | M   |



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**VIRUDHUNAGAR - 626 001**

**B.Sc. ZOOLOGY**

(2020 -2021 onwards)

|                                |                        |                |                |
|--------------------------------|------------------------|----------------|----------------|
| Semester III                   | <b>APPLIED ZOOLOGY</b> | Hours/Week: 2  |                |
| Non Major Elective Course -1   |                        | Credits: 2     |                |
| Course Code<br><b>20UZYN31</b> |                        | Internal<br>40 | External<br>60 |

**COURSE OUTCOMES**

On completion of the course, the students shall be able to

CO1: describe the basic concepts of various branches of culture Biology. [K1]

CO2: understand the structural organization, life cycle and culture techniques of selected culturable species. [K2]

CO3: explain the techniques to control diseases of commercially important species. [K2]

CO4: apply the learnt culture techniques of commercially important species to promote self employment opportunity. [K3]

CO5: find out the economic importance of culturable species. [K3]

**UNIT I**

**Mushroom cultivation**

- ❖ Introduction - Identification of edible and Poisonous Mushrooms.
- ❖ Morphology and cultivation method of Oyster mushroom.
- ❖ Nutritive value and Medicinal value of Mushrooms.
- ❖ Mushroom recipes.

- ❖ Contaminations in Mushrooms; fungi - green mould disease, bacteria – bacterial blotch disease and virus – die back disease (a brief account). (6 Hours)

## UNIT II

### Vermiculture

- ❖ Cultivable species of Earth worm (any five) and its significance.
- ❖ Vermicomposting Methods (Bin and Windrow) and Conditions required for Vermicomposting.
- ❖ Vermicast and Vermiwash. (6 Hours)

## UNIT III

### Apiculture

- ❖ Life history of Honeybee.
- ❖ Natural bee hive, artificial bee hive - Newton's bee hive - Appliances.
- ❖ Chemical Composition, Nutritional and Medicinal Value of Honey.
- ❖ Enemies- Mites, Greater wax moth and King Crows and Diseases of Honeybee – nosemosis, acariasis, American fowl brood. (6 Hours)

## UNIT IV

### Sericulture

- ❖ Type of Silkworms, Life history of *Bombyx mori*.
- ❖ Moriculture- Mulberry Cultivation.
- ❖ Rearing Appliances of Silkworm.
- ❖ Rearing operations – disinfection, hatching, brushing, bed cleaning, feeding, mounting and harvesting.
- ❖ Diseases of Silkworm – Pebrine and muscardine. (6 Hours)

## UNIT V

### Pisciculture

- ❖ Cultivable species in India and nutritive value.
- ❖ Composite fish culture – Polyculture and Sewage Fed Fish Culture.
- ❖ Construction of pond.
- ❖ Induced Breeding. (6 Hours)

## REFERENCE BOOKS

1. Bahl, N. (2006). *Hand Book on Mushrooms* (Ed-IV). New Delhi: Oxford and IBH Publishing Co Pvt. Ltd.
2. Kumaresan, V. (2009). *Biotechnolog*. Nagercoil: Saras Publication.
3. Ravindranathan, K.R. (2003). *Economic Zoology*. New Delhi: Dominant Publishers and Distributors.
4. Sathe, T.V. (2006). *Fundamentals of Bee Keeping*. Delhi: Daya Publishing House.
5. Ganga,G., & Sulochana Chetty, J. (1998). *An Introduction to Sericulture* (Ed-II). New Delhi: Oxford and IBH Publishing Co. Pvt. Ltd.

| Course Code<br>20UZYN31 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | H   | M   | L   | M   | M   | M   | H   |
| CO2                     | M   | M   | M   | M   | M   | M   | H   |
| CO3                     | M   | M   | M   | L   | M   | M   | M   |
| CO4                     | M   | M   | M   | H   | M   | M   | M   |
| CO5                     | H   | M   | L   | H   | H   | M   | H   |

Dr. J. Rani  
Head of the Department

Dr. P. Vijaya  
Course Designer



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**VIRUDHUNAGAR - 626 001**

**B.Sc. ZOOLOGY**

**(2020 -2021 onwards)**

|                                 |                       |                |                |
|---------------------------------|-----------------------|----------------|----------------|
| Semester IV                     | <b>ANIMAL SCIENCE</b> | Hours/Week: 2  |                |
| Non Major Elective<br>Course -2 |                       | Credits: 2     |                |
| Course Code<br><b>20UZYN41</b>  |                       | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, the students will be able to

CO1: describe the basic characters of beneficial and harmful microorganisms, beneficial, edible and harmful invertebrates and vertebrates. [K1]

CO2: understand the importance of beneficial, edible and harmful invertebrates and vertebrates. [K2]

CO3: explain the values of commercially and medically important invertebrates and vertebrates. [K2]

CO4: find out the beneficial and adverse effects of different groups of organisms. [K3]

CO5: apply their knowledge to appreciate the values of animals and their products. [K3]

### UNIT I

Microbes: Introduction, Beneficial microorganisms-Lactobacillus, *Bacillus thuringiensis*. Harmful microorganisms - *Mycobacterium tuberculi* and *Rabies virus*.

(6 Hours)



**UNIT II**

Beneficial invertebrates: Productive insects – Silkworms - life cycle-types of silk, importance of sericulture. Edible invertebrates – Prawn and Oyster (Nutritive value only). Useful invertebrate – Corals and Pearl oyster (Brief account only). (6 Hours)

**UNIT III**

Harmful invertebrates – Pathology and control measures: Ectoparasites - Head louse; Endoparasites: Ascaris; Pest – *Oryctes rhinoceros*, Vector: Mosquito. (6 Hours)

**UNIT IV**

Beneficial vertebrates: Edible vertebrates – Food value of Broilers and Catla. Animals of ornamental value - Gold fish and Fighter fish),(general characters only) Animals of medicinal value – Fishes (Salmon), Snake (Antivenom), Cow (Milk)- Dairy cows. (6 Hours)

**UNIT V**

Harmful vertebrates: General characters of Poisonous snakes - Naja Naja and Viper. Poisonous amphibian- Toad; Poisonous fish – Porcupine. (6 Hours)

**TEXT BOOK**

1.Nair, N.C., Leelavathy,S.,Soundara Pandian, N., Murugan,T., &Arumugam.N. (2010). *A Text book of Invertebrate Zoology*. Saras Publication.

**REFERENCES BOOK**

1.Aneja, K.R., Pranay Jain, & Raman Aneja. (2009). *A Text Book of Basic and Applied Microbiolog*. New Delhi: New Age International Publications.

| Course Code<br>20UZYN41 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | H   | L   | H   | M   | L   | M   | H   |
| CO2                     | H   | L   | M   | L   | L   | M   | H   |
| CO3                     | M   | L   | M   | M   | L   | M   | M   |
| CO4                     | M   | L   | H   | M   | L   | M   | M   |
| CO5                     | M   | -   | L   | H   | H   | M   | H   |

Dr. J. Rani  
Head of the Department

Dr. R. Radhalakshmi  
Course Designer



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**VIRUDHUNAGAR - 626 001**

**B.Sc. ZOOLOGY**

**(2022 -2023 onwards)**

|                                 |                |                |                |
|---------------------------------|----------------|----------------|----------------|
| Semester IV                     | ANIMAL SCIENCE | Hours/Week: 2  |                |
| NME -2                          |                | Credits: 2     |                |
| Course Code<br><b>20UZYN41N</b> |                | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, the students will be able to

CO1: describe the basic characters of harmful and beneficial microorganisms. [K1]

CO2: understand the importance of beneficial and edible invertebrates. (K2)

CO3: explain the value of commercially important vertebrates. (K2)

CO4: apply their knowledge to appreciate the value of beneficial animals and their products. [K3]

CO5: compare the adverse effects of different groups of animals. [K4]

### UNIT I

Microbes: Introduction, Beneficial microorganisms- Lactic acid bacteria (LAB), *Bacillus thuringiensis*. Harmful micrororganisms - *Mycobacterium tuberculi*, Rabies virus and Corona virus. (6 Hours)

### UNIT II

Beneficial invertebrates: Productive insects – Silkworms - life cycle and economic importance of Silkworms and Lac insect. Types of silk. Edible invertebrates – Prawn and

Oyster (Nutritive value only). Useful invertebrate – Corals and Pearl oyster (Brief account only). (6 Hours)

### UNIT III

Harmful invertebrates – Pathology and control measures: Ectoparasites - Head louse; Endoparasites: Ascaris; Pest – Oryctes rhinoceros, Vector: Mosquito. (6 Hours)

### UNIT IV

Beneficial vertebrates: Edible vertebrates – Food value of Broilers and Catla. Animals of ornamental value - Gold fish and Fighter fish),(general characters only) Animals of medicinal value – Fishes (Salmon), Snake (Antivenom), Cow (Milk)- Dairy cows. (6 Hours)

17<sup>th</sup> Academic Council Meeting 31.01.2023

### UNIT V

Harmful vertebrates: General characters of Poisonous fish – Porcupine. Poisonous amphibian- Toad, Poisonous snakes - Naja Naja and Viper and Poisonous bird – Pitohuis. (6 Hours)

### TEXT BOOK

1. Nair, N.C. Leelavathy, S. Soundara Pandian, N. Murugan.T & Arumugam.N. (2010). *A Text book of Invertebrate Zoology*. Saras Publication.

### REFERENCES BOOK

2. Aneja, K.R. Pranay Jain, & Raman Aneja. (2009). *A Text Book of Basic and Applied Microbiology*. New Delhi: New Age International Publications.

| CO/PO<br>Course Code<br>20UZYN41N | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-----------------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO 1                              | M   | -   | H   | H   | M   | M   | H   |
| CO 2                              | M   | -   | H   | H   | M   | M   | H   |
| CO 3                              | H   | L   | H   | H   | M   | H   | H   |
| CO 4                              | M   | L   | H   | H   | M   | H   | H   |
| CO 5                              | M   | -   | H   | H   | L   | M   | H   |

Dr. J. Rani  
Head of the Department

Dr. R. Radhalakshmi  
Course Designer



## V.V.VANNIAPERUMAL COLLEGE FOR WOMEN

(Belonging to Virudhunagar 17<sup>th</sup> Academic Council Meeting 31.01.2023)

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**VIRUDHUNAGAR - 626 001**

**B.Sc. Home Science - Nutrition and Dietetics**

**(2020 -21 onwards)**

|                                |                           |                |                |
|--------------------------------|---------------------------|----------------|----------------|
| Semester III                   | <b>BASIC FOOD SCIENCE</b> | Hours/Week: 2  |                |
| Non Major Elective Course -1   |                           | Credits: 2     |                |
| Course Code<br><b>20UHSN31</b> |                           | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, students will be able to

- CO1: examine the basic concept of food, functions of food, food guide pyramid, composition of food constituents, preliminary preparations of cooking, food adulterants and food preservation. [K1]
- CO2: describe the role of food in good health, objectives of cooking, food laws and regulation, principles of food preservation. [K1]
- CO3: explain the nutritive values of different foods such as cereals, pulses, vegetables and fruits, nuts and oil seeds, milk and milk products, egg and flesh foods. [K2]
- CO4: classify the food based on its physiological functions, food groups, food adulterants and methods of cooking and food preservation. [K2]
- CO5: identify the importance of food guide pyramid, merits and demerits of cooking, food in cookery, food adulterants present in different foods and different preservation techniques. [K3]

**UNIT I**

Food and its functions – classification of food groups – ICMR basic four, five, seven and eleven food groups, food guide pyramid, food in relation to health.

(5 Hours)

**UNIT II**

Methods of cooking- moist heat methods, dry heat methods, combination methods.

(7 Hours)

**UNIT III**

Cereals, pulses, nuts and oil seeds, milk and milk products, egg, flesh foods, vegetables and fruits – composition, nutritive value and role in cookery.

(7 Hours)

**UNIT IV**

Food adulteration – definition, intentional adulterants, PFA, FPO, MPO, AGMARK and FSSAI

(5 Hours)

**UNIT V**

Food preservation – meaning, principles and methods of food preservation.

(6 Hours)

**TEXT BOOK**

Srilakshmi, B. (2015). *Food Science*. NewDelhi: New Age International Ltd.

**REFERENCE BOOKS**

- 1.Potter, N. (2006). *Food Science*. New Delhi: CBS Publishers.
- 2.Shakuntala Manay, N., & Shadaksharaswamy, M. (2008). *Foods Facts and Principles*. New Delhi: New Age International Ltd.
- 3.Sumati, R. (2006). *Food Science*. New Delhi: New Age International Ltd.
- 4.Vennila, P., & Kanchana.(2003). *Principles of Preservation of Fruits and Vegetables*. Madurai: Ratna Publications.

| Course Code<br>20UHSN31 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | M   | M   | -   | -   | H   | -   | -   |
| CO2                     | M   | M   | L   | -   | H   | -   | -   |

|     |   |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|---|
| CO3 | M | M | - | - | H | - | - |
| CO4 | H | M | - | - | H | - | L |
| CO5 | H | M | H | H | H | - | L |

Dr.D.Vijayarani  
Head of the Department

Dr.D.Vijayarani  
Course Designer



## V.V.VANNIAPERUMAL COLLEGE FOR WOMEN

(Belonging to Virudhunagar Hindu Nadars)

An Autonomous Institution Affiliated to Madurai Kamaraj University, Madurai  
Re-accredited with 'A' Grade (3<sup>rd</sup> Cycle) by NAAC

**VIRUDHUNAGAR - 626 001**

**B.Sc. Home Science - Nutrition and Dietetics  
(2020 -21 onwards)**

|                                 |  |                |                |
|---------------------------------|--|----------------|----------------|
| Semester IV                     | <b>BASIC NUTRITION AND<br/>DIETETICS</b> | Hours/Week: 2  |                |
| Non Major Elective<br>Course -2 |  | Credits: 2     |                |
| Course Code<br><b>20UHSN41</b>  |  | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, students will be able to

- CO1: describe the concept of food, nutrients, balanced diet, RDA, food sources and meal planning. [K1]
- CO2: state the principles of meal planning for normal and diseased persons and the functions of nutrients. [K1]
- CO3: classify nutrients and explain the causes for deficiency diseases of macro and micro nutrients and the factors influencing meal planning. [K2]
- CO4: explain the nutritional requirements and dietary guidelines for the various stages of life span and the special conditions. [K2]
- CO5: write the clinical symptoms, treatment and dietary modifications for various factors and plan the menu for normal and diseased people. [K3]

### UNIT I

Carbohydrates, Protein, Fats-meaning, classification, functions and food sources,  
Protein Energy Malnutrition (marasmus, kwashiorkor) - causes, symptoms and treatment.  
Fibre- definition and role of dietary fiber in human health.

(6 Hours)

## UNIT II

Vitamins – definition, classifications, functions, food sources and deficiency diseases  
of the following Vitamins

Water soluble Vitamins – Thiamine, Riboflavin, Niacin, Folic acid and Vitamin C and

Fat soluble Vitamins – A, D, E and K

(6 Hours)

## UNIT III

Minerals –definition, classifications, functions, food sources and deficiency diseases  
of the following minerals

Minerals - calcium, phosphorous, iron and iodine, zinc, copper, magnesium

(5 Hours)

## UNITIV

Balanced diet – definition, meal planning – definition, principles, factors influencing  
meal planning and its modification to suit different income levels, age and physiological states.

Recommended Dietary Allowances (2010) for different age groups of both sex. (6 Hours)

## UNIT V

Diet for vulnerable groups - diet for pregnant woman, lactating woman and for  
elderly. Special diet – slimming.

Diet for diseased conditions - fever, diarrhea, obesity, hypertension and diabetes. (7 Hours)

## TEXT BOOK

1. Srilakshmi,B. (2015). *Dietetics*. Delhi: New Age International (P) Ltd. Publishers.
2. Gajalakshmi, R. (2015). *Nutrition Science*. Delhi: CBS Publishers and Distributors Pvt. Ltd.

## REFERENCE BOOKS

1. Khanna, K. (1997). *Nutrition and Dietetics*. New Delhi: Phoenix Publishing House Pvt. Ltd.
2. Srilakshmi, B. (2015). *Dietetics*. New Delhi: New Age International (P) Ltd. Publishers.
3. Srilakshmi, B. (2008).*Nutrition Science*. New Delhi: New Age International (P) Ltd. Publishers.

4. Swaminathan, M. (2004). *Food and Nutrition* - volume 1. Bangalore: Bangalore Printing and Publishers Co. Ltd.

| Course Code<br>20UHSN41 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | M   | M   | -   | -   | H   | -   | -   |
| CO2                     | M   | M   | L   | -   | H   | -   | -   |
| CO3                     | M   | M   | -   | -   | H   | -   | -   |
| CO4                     | H   | M   | L   | L   | H   | -   | -   |
| CO5                     | H   | M   | H   | H   | H   | -   | L   |

Dr.D.Vijayarani  
Head of the Department

Dr.D.Vijayarani  
Course Designer



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**VIRUDHUNAGAR - 626 001**

### B.Sc. BIOCHEMISTRY (2020 -21 onwards)

|                                 |                         |                |                |
|---------------------------------|-------------------------|----------------|----------------|
| Semester III                    | <b>WOMEN AND HEALTH</b> | Hours/Week: 2  |                |
| Non Major Elective<br>Course -1 |                         | Credits: 2     |                |
| Course Code<br><b>20UBCN31</b>  |                         | Internal<br>40 | External<br>60 |

### COURSE OUTCOME

On completion of the course, the students will be able to

- CO1 : recall the female physiology, hormones, problems associated with women health. [K1]
- CO2 : relate the problems associated with female hormone imbalance and pregnancy. [K2]
- CO3 : indicate the health complications of women associated with age. [K2]
- CO4 : sketch the importance of nutrients, vaccines and diagnostic tests in women health. [K3]
- CO5 : apply the knowledge about women health to prevent diseases and create awareness. [K3]



**UNIT I**

Study of female reproductive system, female hormones – Estrogen, progesterone - menstrual cycle, female secondary sexual characteristics. (5 Hours)

**UNIT II**

Menarche, Menopause – osteoporosis. Problems associated with menstruation – premenstrual syndrome, Amenorrhea, Dysmenorrhoea, polycystic ovary and fallopian tube obstruction. (10 Hours)

**UNIT III**

Brief note on pregnancy, nutrition during pregnancy, vaccines and diagnostic tests during pregnancy. (5 Hours)

**UNIT IV**

Complication associated with pregnancy – Anemia - Gestational diabetes, Ectopic pregnancy, Eclampsia, Miscarriages and Still birth. (5 Hours)

**UNIT V**

Cancers in women – Breast cancer, Cervical cancer and Ovarian cancer. Diagnosis and treatment- Sexually transmitted diseases, Thyroid related problems – Thyroid imbalances. (5 Hours)

**TEXT BOOKS**

1. Swaminathan, M. (1981). *Handbook of Food and Nutrition*, Bangalore: Bappco Publications, 5<sup>th</sup> Edition.

**REFERENCE BOOKS**

1. Harrison. (2015). *Principles of Internal Medicine*, volume I & II, Mc Graw Hill Publications. 13<sup>th</sup> Edition.
2. Corinne Robinson. (1982). *Normal and Therapeutic Nutrition*, London: Collier Macmillan Publishers, 16<sup>th</sup> Edition.
3. Guyton, H.D & John E.Hall .(2015).*Text Book of Medical Physiology*, India: Saunders Publishers, 13<sup>th</sup> Edition.

| Course Code<br>20UBCN31 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | M   | L   | L   | L   | L   | M   | L   |
| CO2                     | M   | M   | L   | L   | L   | M   | L   |
| CO3                     | M   | M   | L   | L   | M   | M   | L   |
| CO4                     | M   | M   | L   | L   | H   | M   | L   |
| CO5                     | M   | M   | M   | L   | H   | M   | L   |

Dr.P.Annapoorani  
Head of the Department

Dr.R.Salini  
Course Designer



## V.V.VANNIAPERUMAL COLLEGE FOR WOMEN

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**VIRUDHUNAGAR - 626 001**

**B.Sc. BIOCHEMISTRY**

**(2020 -21 onwards)**

|                                 |  |                |                |
|---------------------------------|--|----------------|----------------|
| Semester IV                     | <b>LIFE STYLE ASSOCIATED<br/>DISORDERS</b> | Hours/Week: 2  |                |
| Non Major Elective<br>Course -2 |  | Credits: 2     |                |
| Course Code<br><b>20UBCN41</b>  |  | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, the students will be able to

- CO1 : recall the health problems associated with modern life style. [K1]
- CO2 : relate the impact of modern lifestyle on health. [K2]
- CO3 : classify the life style associated disorders. [K2]
- CO4 : illustrate the sources, causes, symptoms, diagnosis and treatment for various life style associated disorders. [K3]
- CO5 : identify and develop a method to prevent life style associated disorders. [K3]

### UNIT I

Modern life styles-Sedentary habits, Junk food, obesity, Polluted environment, Sleeping habits, Smoking, Alcoholism, Drugs. (5 Hours)

### UNIT II

An introduction to

1. Diabetes mellitus.
2. Cardio vascular system- Atherosclerosis, Myocardial infarction, hypertension.

(10 Hours)

### UNIT III

Introduction to digestive system- Liver hepatitis, Fatty liver, Cirrhosis, Jaundice, Gastritis, Ulcer, Amoebiasis, Constipation. (5 Hours)

**UNIT IV**

Basic knowledge of respiratory system- Common cold, Asthma, Wheezing, Allergic sinusitis, Tuberculosis. (5 Hours)

**UNIT V**

Brief note on excretory system- Kidney stones, Renal failure and Urinary tract infection. (5 Hours)

**TEXT BOOKS**

1. Chatterjea, M.N., & Rana Shinde. (2012). *Text Book of Medical Biochemistry*, 7<sup>th</sup> Edition. New Delhi: JP Brothers & Medical Publishers P Ltd.
2. Ramakrishnan, S., & Rajaswami. (1995). *Text book of clinical Medical Biochemistry*, 1<sup>st</sup> Edition. Chennai: T.R. Publications.

**REFERENCE BOOKS**

1. Guyton, H.D., & John E.Hall. (2015). *Text book of Medical Physiology*, 13<sup>th</sup> Edition. India: Saunders publishers.
2. Corinne Robinson. (1982). *Normal and Therapeutic Nutrition*, 16<sup>th</sup> Edition. London: Collier Macmillan Publishers.

| 20UBCN41 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|----------|-----|-----|-----|-----|-----|-----|-----|
| CO1      | H   | M   | M   | L   | M   | -   | L   |
| CO2      | H   | M   | L   | L   | M   | -   | L   |
| CO3      | H   | M   | M   | L   | M   | -   | L   |
| CO4      | H   | M   | M   | L   | M   | L   | L   |
| CO5      | H   | M   | M   | M   | M   | -   | L   |

Dr.P.Annapoorani  
Head of the Department

Dr.R.Renuka  
Course Designer



## V.V.VANNIAPERUMAL COLLEGE FOR WOMEN

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**VIRUDHUNAGAR - 626 001**

**B.Sc. MICROBIOLOGY**

**(2020 -21 onwards)**

|                                |                               |                |                |
|--------------------------------|-------------------------------|----------------|----------------|
| Semester III                   | <b>MEDICAL LAB TECHNOLOGY</b> | Hours/Week: 2  |                |
| Non Major Elective Course - 1  |                               | Credits: 2     |                |
| Course Code<br><b>20UMBN31</b> |                               | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, the students will be able to

CO1: recall the components of blood, their functions and collection procedures. [K1]

CO2: describe the role of anticoagulants, composition of serum and plasma and blood bank guidelines. [K1]

CO3: explain the procedure to collect, handle and dispose of clinical specimens in the laboratory. [K2]

CO4: summarize the concepts of blood, procedures and preparations routinely followed in blood banks and medical laboratories. [K2]

CO5: apply the types of routine hematological tests and biochemical tests preferable for basic blood analysis. [K3]

### UNIT I

Components of blood and their functions: Erythrocytes, Leukocytes, Lymphocytes, Monocytes, and Thrombocytes. (7 Hours)

### UNIT II

Anticoagulants -Blood collection by venipuncture and capillary puncture. Safety disposal of blood samples. Separation of serum and plasma. (5 Hours)

### UNIT III

Routine procedures in blood bank: General Laboratory preparations in Blood bank. Maintenance of laboratory records. (4 Hours)

**UNIT IV**

Routine hematological tests: ABO blood grouping, Rh typing - Determination of hemoglobin concentration: Cyanmethaemoglobin method – RBC, WBC & Platelet Count – Immunological tests: ELISA & Pregnancy test. (8 Hours)

**UNIT V**

Clinical Biochemistry: Routine biochemical tests in Blood sugar (folin – wu method), blood urea (oxime method), creatinine (alkaline picrate method) and cholesterol (leffler method). (6 Hours)

**TEXT BOOK**

Mukherjee, K.L., (1988). *Medical Laboratory Technology*, Volume – I to III, 2<sup>nd</sup> edition. New Delhi: Tata McGraw-Hill Publishing Company Limited.

**REFERENCE BOOK**

Praful, B., Godkar, & Darshan, P., Godkar, (2014). *TextBook of Medical Laboratory Technology* (Volume I & II), 3<sup>rd</sup> edition. New Delhi: Bhalani Publishing House.

| Course Code<br>20UMBN31 | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 |
|-------------------------|------|------|------|------|------|------|------|
| CO1                     | H    | M    | L    | L    | L    | -    | -    |
| CO2                     | H    | M    | L    | L    | -    | -    | -    |
| CO3                     | H    | M    | L    | L    | -    | -    | -    |
| CO4                     | M    | H    | M    | M    | L    | -    | -    |
| CO5                     | H    | L    | H    | M    | L    | -    | L    |

Mrs.J.Jeya  
Head of the Department

Mrs.M.M.FatimaMansoor  
Course Designer



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**VIRUDHUNAGAR - 626 001**

**B.Sc. MICROBIOLOGY**

**(2020 -21 onwards)**

|                                |                             |                |                |
|--------------------------------|-----------------------------|----------------|----------------|
| Semester IV                    | <b>APPLIED MICROBIOLOGY</b> | Hours/Week: 2  |                |
| Non Major Elective Course - 2  |                             | Credits: 2     |                |
| Course Code<br><b>20UMBN41</b> |                             | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, the students will be able to

CO1: define the historical perspective, scope and relevance of various applied fields in microbiology. [K1]

CO2: describe the beneficial and harmful aspects of microorganisms in human, agriculture, food and industries. [K1]

CO3: explain the factors affecting food, quality control techniques of food and quality analysis of milk and water. [K2]

CO4: outline about the mass production of biofertilizer, design of fermentor and fermentation products. [K2]

CO5: interpret the applied nature of microorganisms in various fields of Microbiology. [K3]

### UNIT I

**General Microbiology:** Discovery of Microorganisms- contributions of Louis pasteur and Robert koch - Prokaryotic cell Vs Eukaryotic cell - Microbes in air, water and soil - Normal flora in human body - Potability of water by MPN (Most Probable Number) test.

(6 Hours)

### UNIT II

**Agricultural Microbiology:** Introduction to Biofertilizer - Production strategy of biofertilizers: *Rhizobium*, *Azospirillum*, *Phosphobacteria*, *Trichoderma* and *Azolla*. Applications of biofertilizer.

(5 Hours)

**UNIT III**

**Food and Dairy Microbiology:** General factors affecting the food - Spoilage and preservation of vegetables - Bacteriology of milk and its preservation - Milk quality analysis: Methylene Blue Dye Reduction Test and Resazurin test - Food quality control techniques: HACCP & FSSAI. (6 Hours)

**UNIT IV**

**Industrial Microbiology:** Basic design of fermentor - General account on fermentation - Industrial production of antibiotic (Penicillin), Alcoholic beverage (Beer), Vitamin (B12) and organic acid (Citric acid). (6 Hours)

**UNIT V**

**Pharmaceutical microbiology:** Introduction to Chemotherapy - Structure and Mode of action of antimicrobial agents: Antibacterial drugs- Penicillin and Streptomycin. Antiviral drugs- Amantadine and Acyclovir. Antifungal drugs- Amphotericin B and Clotrimazole. (7 Hours)

**REFERENCE BOOKS**

1. Prescott, Harley & Klein, (2008). *Microbiology*, 6<sup>th</sup> edition. New York: The McGraw-Hill companies.
2. Patel, A.H.(2010). *Industrial Microbiology*, 2<sup>nd</sup> edition. Hyderabad: Macmillan India Limited.
3. Frazier, WC., & Westhof DC., (2003). *Food Microbiology*, 4<sup>th</sup> Edition. New York: McGraw-Hill Companies.
4. Dubey, R.C., (2006). *Textbook of Biotechnology*, 2<sup>nd</sup> edition. New Delhi: S.Chand & company Ltd.

| Course Code<br>20UMBN41 | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 |
|-------------------------|------|------|------|------|------|------|------|
| CO1                     | M    | L    | L    | L    | -    | -    | -    |
| CO2                     | H    | L    | M    | L    | -    | -    | L    |
| CO3                     | H    | M    | M    | M    | L    | -    | L    |
| CO4                     | H    | M    | L    | M    | L    | -    | -    |
| CO5                     | M    | L    | L    | L    | M    | -    | -    |

Mrs.J.Jeya  
Head of the Department

Mrs.M.M.Fatima Mansoor  
Course Designer





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Re-accredited with 'A' Grade (3<sup>rd</sup> Cycle) by NAAC

**VIRUDHUNAGAR - 626 001**

**B.Sc. BIOTECHNOLOGY**

**(2020 -21 onwards)**

|                                |                            |                |                |
|--------------------------------|----------------------------|----------------|----------------|
| Semester III                   | <b>INFECTIOUS DISEASES</b> | Hours/Week: 2  |                |
| Non Major Elective Course -I   |                            | Credits: 2     |                |
| Course Code<br><b>20UBON31</b> |                            | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, the students will be able to

CO1: define the ubiquitous nature and characteristics of pathogens and its life cycle. [K1]

CO2: describe the causes and epidemiology of various infectious Diseases. [K2]

CO3: outline the pathogenesis and symptoms of transmissible diseases. [K2]

CO4: explain the laboratory identification of bacterial, fungal and viral diseases. [K3]

CO5: illustrate the preventive methods, diagnosis and treatment of communicable diseases. [K3]

### UNIT I

**INFECTIONS:** Distribution of pathogenic microorganisms. Characters of Pathogenic microorganisms – Bacteria, fungi, viruses and protozoans. Interaction between host and infectious agent. (6 Hours)

### UNIT II

**BACTERIAL DISEASES:** *Tuberculosis, Typhoid, Diphtheria* infections - Laboratory identification, epidemiology and control measures. (6 Hours)

### UNIT III

**FUNGAL DISEASES:** Mycoses – Types, examples - *Aspergillosis and candidiasis*, Pathogenesis, occurrence, epidemiology and treatment. (6 Hours)

### UNIT IV

**PROTOZOAN DISEASES:** Malaria, Amoebiasis, Leishmania. - Pathogenesis, distribution, diagnostic measures and treatment. (6 Hours)

**UNIT V**

**VIRAL DISEASES:** Epidemiology, identification and control measures of Hepatitis, AIDS, Dengue. (6 Hours)

**TEXT BOOKS**

1. Anandanarayanan, R & Jayaram Paniker, C.K. (2009). *Text book of Microbiology*, Hyderabad, India. Universities press, 8<sup>th</sup> Edition.

**REFERENCE BOOKS**

1. Boyd, R.F & B.G. Hoer, (1991). *Basic Microbiology*, 4<sup>th</sup> Edition. New York:
2. Little Brown and CoSheehan, C. (1997) *Clinical Immunology. Principles and Laboratory Diagnosis*, 2<sup>nd</sup> Edition. New York: Lipincott Williams and Wilkins.

| Course Code<br>20UBON31 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | H   | H   | M   | M   |     | -   | -   |
| CO2                     | H   | H   | M   | M   | -   | -   | -   |
| CO3                     | M   | H   | M   | M   | -   | -   | -   |
| CO4                     | M   | M   | M   | M   | L   | -   | -   |
| CO5                     | L   | M   | M   | M   | L   | -   | L   |

Dr.V.Jeyasimga  
Head of the Department

Mrs.Sinthia Ganesan  
Course Designer



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**VIRUDHUNAGAR - 626 001**

**B.Sc. BIOTECHNOLOGY**

**(2020 -21 onwards)**

|                                |                        |                |                |
|--------------------------------|------------------------|----------------|----------------|
| Semester IV                    | <b>ORGANIC FARMING</b> | Hours/Week: 2  |                |
| Non Major Elective Course - 2  |                        | Credits: 2     |                |
| Course Code<br><b>20UBON41</b> |                        | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, the students will be able to

CO1: recall the principles of organic farming, organic inputs, cultivation methods and organic certification process. [K1]

CO2: outline the advantages of organic farming, organic plant protection and nutrient management, and the agencies involved in organic certification. [K2]

CO3: describe the types of organic farming, standards for organic fertilisers, pesticides, organic cultivation of crops and its marketing. [K2]

CO4: explain the types and significance of organic farming, organic plant protection and production and the certification of organic products for marketing. [K3]

CO5: apply the knowledge of organic farming in organic cultivation system, certification Process. [K3]

### UNIT I

**Concept of organic farming:** Introduction: Farming, organic farming - concept, Principles, Types of organic farming, Biodynamic farming, Benefits of organic farming. Need for organic farming. (6 Hours)

### UNIT II

**Organic plant nutrient management:** Organic farming systems- Soil tillage, Land preparation and mulching. Standards for organic inputs- fertilizers. Green manures- bio fertilizers – types, methods of application – benefits and limitations. (6 Hours)

**UNIT III**

**Organic Plant protection:** Plant protection- cultural, mechanical, biocontrol agents, Biopesticides, Weed management, Standards for organic plant protection inputs. (6 Hours)

**UNIT IV**

**Organic crop production practices:** Organic crop production methods- rice, vegetables- okra, Conversion to organic farming, Terrace farming. (6 Hours)

**UNIT V**

**Organic certification:** Operational structure of NPOP – other agencies for organic production. Inspection – certification - labeling and accreditation procedures for organic products. Processing, - economic consideration and viability. Marketing and export potential of organic products. (6 Hours)

**TEXT BOOKS**

1. Arun K. Sharma. (2002). *A Hand book of organic farming*. Agrobios, India.
2. Palaniappan, S.P and Annadurai, K. (1999). *Organic farming-Theory and Practice*, Jodhpur, India: Scientific publishers,

**REFERENCE BOOKS**

1. Mukund Joshi and Prabhakarasetty, T.K. 2006. *Sustainability through organic farming*, New Delhi: Kalyani publishers.
  2. Balasubramanian, R., Balakishnan, K and Siva Subramanian, K. 2013. *Principles and practices of organic farming*. Satish Serial Publishing House.
  3. Tarafdar, J.C., Tripathi, K.P and Mahesh Kumar, (2009). *Organic agriculture*, India: Scientific Publishers.
  4. Tiwari, V.N., Gupta, D.K., Maloo, S.R and Somani, L.L. (2010). *Natural, organic, biological, ecological and biodynamic farming*, Udaipur: Agrotech Publishing Academy.
  5. Dushyent Gehlot. 2005. *Organic farming- standards, accreditation, certification and inspection*, India: Agrobios
- Boyd, R.F and B.G. Hoer, 1991. *Basic Microbiology*, 4th Edt. New York: Little Brown and Co.

| Course Code<br>20UBON41 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | H   | H   | L   | L   | -   | -   | L   |
| CO2                     | H   | M   | L   | L   | -   | -   | -   |
| CO3                     | H   | H   | M   | L   | -   | -   | -   |
| CO4                     | H   | H   | H   | L   | -   | -   | M   |
| CO5                     | H   | H   | M   | L   | L   | -   | M   |

Dr.V.Jeyasimga  
Head of the Department

Dr.V.Jeyasimga  
Course Designer



## V.V.VANNIAPERUMAL COLLEGE FOR WOMEN

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Re-accredited with 'A' Grade (3<sup>rd</sup> Cycle) by NAAC

**VIRUDHUNAGAR - 626 001**

**B.Sc. Costume Design and Fashion**

**(2020-21 onwards)**

|                                |                          |                |                |
|--------------------------------|--------------------------|----------------|----------------|
| Semester III                   | <b>BASICS OF FASHION</b> | Hours/Week: 2  |                |
| Non Major Elective Course -1   |                          | Credits: 2     |                |
| Course Code<br><b>20UCFN31</b> |                          | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, the students will be able to

CO1: describe the concepts of fashion, colours, motives, figure irregularities, elements and principles of design. [K1]

CO2: classify the types of fashion, motives, colours, design elements, principles of design and illustrate suitable dresses for various figure irregularities. [K2]

CO3: trace the importance of fashion, colours, motives, design elements, principles of design and select suitable dresses for various figure irregularities. [K2]

CO4: find out the changes that occur in fashion, colours and develop motives using textile design. [K3]

CO5: make use of the applications of colours, design elements, principles of design and to develop suitable dresses for various figure irregularities. [K3]

### UNIT I Elements of Design on Apparel

Design, Classification - structural design and decorative design. Elements of design - line, shape, form, size, texture, directions and space. (5 Hours)

### UNIT II Principles of Design on Apparel

Principles of design – balance – formal balance, informal balance and radial balance. Proportion – division of space, creating optical illusion, scale, golden oblong. Emphasis – grouping of objects, contrast colour, decorative, plain background, unusual line, shape and size. Rhythm –

repetition of shape, progression of size, continuous line movement, alternation and radiation. Harmony – line and shape, size, texture, idea, and colour. (7 Hours)

### **UNIT III Textile Design**

Design developments – motifs, repeats. Types of textile design – natural, geometric, conventional, abstract and historical. Study of repeat structures and its types – spot repeat, brick drop, directional and non directional. Study of turning patterns and its types – flipping horizontal, flipping vertical, turnings spot (rotation dangles), study of diamond and ogee based designs. (5 Hours)

### **UNIT IV Fashion**

Fashion – definition, classification - fad, style, classic, fashion trend, fashion forecasting. Fashion evolution – fashion cycle, style, increase in popularity, peak of popularity, decline in popularity and rejection of a style. Fashion marketing - structure, mannequin and boutique. (7 Hours)

### **UNIT V Figure Analysis**

Figure types and figure irregularities - heavy figure, slim figure, slender figure, narrow shoulders, broad shoulders, round shoulders, large busts, large hips, large abdomen, large face, square face, round face and narrow pointed face. (6 Hours)

### **TEXT BOOK**

Sumathi, G. J., (2008). *Elements of Design*. New Delhi: New Age International (p) Limited Publishers.

### **REFERENCE BOOKS**

1. Erwin, M. D., Lila, A. & Kinchen, (Eds.). (1974). *Clothing for Moderns* London: Collier Mac Millan Publishers.
2. John, M. (1990). *Fashion Design and Illustration*. London: Melbourne.
3. Khurana, P. and Sethi, M. (2007). *Introduction to Fashion Technology*. New Delhi: Fire Well Publication.
4. Narang, M. (2007). *Hand Book of Fashion Technology*. New Delhi: Asia Pacific Business Press Inc.
5. Pundir, N. (2007). *Fashion Technology Today and Tomorrow*. New Delhi: Mittal Publication.

| Course Code<br>20UCFN31 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | H   | M   | -   | -   | -   | -   | -   |
| CO2                     | H   | M   | -   | -   | -   | -   | -   |
| CO3                     | H   | H   | -   | -   | -   | -   | -   |
| CO4                     | H   | H   | H   | -   | -   | -   | -   |
| CO5                     | H   | H   | H   | -   | H   | -   | -   |

Mrs.J.Athirstam  
Head of the Department

Ms. L.Devimuthumari  
Course Designer





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**B.Sc. Costume Design and Fashion**

**(2020 -21 onwards)**

|                                |                           |                |                |
|--------------------------------|---------------------------|----------------|----------------|
| Semester IV                    | <b>INTERIOR DESIGNING</b> | Hours/Week: 2  |                |
| Non Major Elective Course -2   |                           | Credits: 2     |                |
| Course Code<br><b>20UCFN41</b> |                           | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, students will be able to

CO1: show the concepts and selection of colours and furnishing materials for homes. [K1]

CO2: classify the types of colours and furnishing materials suitable for day to day life and explain the maintenance of furnishing materials. [K2]

CO3: trace the usage of colours and functions of home furnishing materials for kitchen linen, draperies, curtains, floor coverings and bed linen. [K2]

CO4: make use of the applications of colours and furnishing materials for various home decors with good care. [K3]

CO5: utilize the technical skills to select colors and materials suitable for home decors. [K3]

### UNIT I Colour Aspects

Prang colour chart – primary, secondary, intermediate and tertiary colours. Colour dimensions - hue, value, intensity. Warm and cool colours. Psychology of colours on dress. Illusions created by colours. Applications of colours for different seasons. Colour schemes – related colour harmony - monochromatic harmony and analogous harmony. Contrasting harmony - complementary harmony, double complementary harmony, split complementary harmony and triad.  
(7 Hours)

### UNIT II Introduction to Home Furnishing

Introduction to home furnishing – different types of furnishing materials – selection of furnishing materials.  
(5 Hours)

### **UNIT III Draperies and Curtains**

Doors and windows – different types and functions – styles in draperies, curtains and valances. Care and maintenance. (5 Hours)

### **UNIT IV Floor Coverings**

Floor coverings – types – hard floor coverings, soft floor coverings. Care and maintenance. (7 Hours)

### **UNIT V Linens**

Bed linen - pillow, pillow covers, bed covers. Kitchen linen-apron, table linen and hand towel. Bathroom linen. (6 Hours)

### **TEXT BOOK**

Muriel Clark, R. (1981). *Home Management*. London: A Fresh Approach, Richard clay Ltd.

### **REFERENCE BOOKS**

1. Alexander, N.G. (1972). *Designing Interior Environment*. New York: Mascourt, Bizucovanorich, Inc.
2. Baker, W. (2000). *Fabric Sector*. London: Collins and Brown Publication Pvt.Ltd.
3. Lunenschloss, J. Albrocht, W. (1985). *Non Woven Bonded fabrics*. London: Ellis Horwood.
4. Murphy, R.J. (1997). *House Beautiful – A Seasonal Guide to Decorating With Fabric*. New York : Quadrille Publishing Ltd.
5. Octopus, H. (2001). *Cushions and Pillows-Professional Skills Made Easy*. New York: Octopus Publishing Group.

| Course Code<br>20UCFN41 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | H   | M   | -   | -   | -   | -   | -   |
| CO2                     | H   | M   | -   | -   | -   | -   | -   |
| CO3                     | H   | H   | -   | -   | -   | -   | -   |
| CO4                     | H   | H   | H   | -   | -   | -   | -   |
| CO5                     | H   | H   | H   | -   | H   | -   | -   |

Mrs.J.Athirstam  
Head of the Department

Ms.N.Praveena  
Course Designer



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**VIRUDHUNAGAR - 626 001**

### B.Sc. COMPUTER SCIENCE

(2020 - 2021 onwards)

|                                 |  |                |                |
|---------------------------------|--|----------------|----------------|
| Semester III                    | <b>INTRODUCTION TO COMPUTERS AND<br/>OFFICE AUTOMATION</b> | Hours/Week: 2  |                |
| Non Major Elective<br>Course- 1 |  | Credits: 2     |                |
| Course Code<br><b>20UCSN31</b>  |  | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, the learners will be able to

- CO1: outline the characteristics of computers and essential components of system. [K1]
- CO2: recognize the features of Windows 7, Microsoft Office Word 2010 and Microsoft Office Excel 2010. [K1]
- CO3: describe working with files, folders, pictures, tables and mail. [K2]
- CO4: discuss manipulation of components of spread sheet. [K2]
- CO5: apply formatting on elements of Word and Excel. [K3]

### UNIT I

**Fundamentals of Computer:** Various Types of Computers: Personal Computer, Laptop Computer, Mainframe Computer, Super Computer – Computer Hardware: Keyboard, Mouse, Monitor, Printer.**Exploring the Windows 7 User Interface:** Exploring the Desktop – Working with Desktop Icons: Adding Icons to the Desktop, Arranging Desktop Icons – Using the Start Menu: Starting a Program, Pinning a Program to the Start Menu.

**Working with Windows Explorer:** Performing Basic File and Folder Operations: Creating Files and Folders, Renaming Files and Folders, Opening and Viewing the Content of Folders, Copying and Moving Files and Folders, Deleting Files or Folders. (6 Hours)

## UNIT II

**Introducing Microsoft Word 2010:** Starting Microsoft Word 2010 – Exploring the User Interface of MS Word 2010 – Exploring Tabs in Ribbon: Home Tab, Insert Tab, Page Layout Tab – Saving the Document – Creating a New Document: Creating a Blank Document – Opening an Existing Document – Closing the Document – Quitting from Microsoft Word 2010.

**Working with First Document in MS Word 2010:** Working with Text: Adding Text in a Document, Editing Text, Creating Bulleted and Numbered Lists – Applying Text Formatting: Changing Font and Font Size of Text, Applying Bold, Italic, and Underline, Changing the Color of the Text – Inserting Header and Footer. (6 Hours)

## UNIT III

**Working with Pictures and Tables:** Working with Graphical Object: Inserting a Picture, Inserting Clip Art, Inserting a Shape, Inserting a WordArt – Performing Advance Operation on Graphical Object: Cropping a Picture, Adding a Border to a Picture – Working with Table: Inserting a Table, Adding Rows and Columns in an Existing Table, Merging and Splitting Cells.

**Using Mail Merge, Envelops, and Labels:**Creating a Using Mail Merge: Setting the Environment for Mail Merge, Adding and Editing Recipients, Inserting Merge Fields, Previewing and Finishing Mail Merge. (6 Hours)

## UNIT IV

**Introduction to Excel 2010:** Understanding Workbooks and Worksheets – Starting Microsoft Excel 2010 – Exploring the Microsoft Excel 2010 User Interface: The File Tab, Quick Access Toolbar, The Title Bar, The Minimize, Maximize/Restore, and Close Buttons, The Ribbon, The Formula Bar, The Name box, The Worksheet, Scroll Bars, The Sheet Tab, The Status Bar.

**Working with Worksheets and Cells:**Exploring the Different Types of Data used in Excel: Entering Data in a Worksheet – Saving a Workbook – Opening an Existing Workbook –Working with Rows and Columns: Inserting Rows and Columns, Deleting Rows and Columns – Describing the Cut, Copy, and Paste Commands: Using the Cut Command, Using the Copy Command, Using the Paste Command. (6 Hours)

**UNIT V**

**Working with Charts, Smart Art Graphics, and Sparklines:** Understanding Charts: Understanding Chart Type: Column Chart, Bar Chart, Line Chart and Pie Chart, Working with Charts: Creating a Chart.

**Working with Formulas and Functions:** Exploring the Basic Concepts used in Formulas: Understanding Operators in Formulas, Understanding Cell Referencing – Working with Mathematical and Statistical Functions: Using the PRODUCT Function, Using the SUM Function, Using the AVERAGE Function – Working with Logical Functions: Using the AND Function, Using the IF Function, Using the OR Function. (6 Hours)

**TEXT BOOK**

Vikas Gupta (2018), *Comdex Computer Course Kit Windows 7 with Office 2010*, Dreamtech Press, New Delhi, India.

| <b>UNIT</b> | <b>PAGES</b>  |
|-------------|---|
| <b>I</b>    | <b>1-8, 56-59, 78,79, 89-95</b>                                   |
| <b>II</b>   | <b>173-175, 177-180, 184, 185, 187-190, 195-205, 207, 217-220</b> |
| <b>III</b>  | <b>238-241, 243-245, 250-255, 262-270</b>                         |
| <b>IV</b>   | <b>277-283, 302-309, 313-319</b>                                  |
| <b>V</b>    | <b>366-368, 371, 372, 388-398, 403-407</b>                        |

**REFERENCE BOOKS**

1. Dinesh Maidasani (2011), *Learning Computer Fundamentals, MS Office and Internet & Web Technology*, Third Edition, Firewall Media, Kerala, India.
2. Ramesh Bangia (2015), *Learning Microsoft Office 2010*, UBS Publishers, Bengaluru, India.

| Course Code<br>20UCSN31 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | M   | L   | L   | L   | L   | -   | -   |
| CO2                     | M   | L   | L   | L   | L   | -   | -   |
| CO3                     | M   | M   | M   | L   | L   | -   | -   |
| CO4                     | M   | M   | L   | M   | M   | -   | -   |
| CO5                     | M   | H   | L   | M   | L   | -   | -   |

Dr. G. Karthigai Lakshmi  
Mrs. P. Aruna Devi  
Heads of the Departments

Ms. T. JeyaPriya  
Course Designer



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**VIRUDHUNAGAR - 626 001**

**B.Sc. COMPUTER SCIENCE**

(2020 - 2021 onwards)

|                                 |  |                |                |
|---------------------------------|--|----------------|----------------|
| Semester IV                     | <b>INTRODUCTION TO INTERNET AND<br/>HTML 5</b> | Hours/Week: 2  |                |
| Non Major Elective<br>Course -2 |  | Credits: 2     |                |
| Course Code<br><b>20UCSN41</b>  |  | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, the students will be able to

- CO1: describe the features of the web, web browser, E-Mail and HTML tags. [K1]
- CO2: summarize the purpose of browsers, Mailing software, HTML tags. [K2]
- CO3: discuss the creation of webpage, page layouts, forms and formatting of images in HTML. [K2]
- CO4: examine the features of Internet Explorer and organization of E-Mail. [K3]
- CO5: use table, paragraph, list, text style tags and different components in HTML Form. [K3]

### UNIT I

**Introduction to Internet:** Introduction to Internet – History of Internet – IETF-IRTF-IAB – Working of Internet and Intranet – Information on Internet – Requirements for connecting to Internet – Basic Internet terms – HTML – Internet Services and Governance – Impact of Internet on society.

**Browsers:** Definition of Browser – Basic Features of Web Browsers – Running a Browser – Working of Internet Explorer – Toolbar Buttons – Getting to a Website – Working with Favorites – Working with History – Back and Forward Buttons – Bookmarks – Working on the web using the Browsers – Customization of Browsers – Netscape Browser – Keyboard Shortcuts for Working in Internet Explorer. (6 Hours)



## UNIT II

**Working with e-mail:** E-Mail – Opening of E-Mail Account – E-Mail Organization – Parts of E-Mail Text – Working with Messages – Reading a Message – Replying to a Message – Forwarding a Message – Deleting a Message – Changing View – Attaching a file or an item to a message.

(6 Hours)

## UNIT III

**HTML:** Introduction – HTML Command Tags – Quotation Marks – Spacing – Special Symbols – New Web Page Creation – Looking at your page in a Browser – Defining Web Page – Main Body of the text – Putting Headers – Adding Paragraph – Formatting Text in HTML – Font Type – Font size – Using Big and Small – Using predefined fonts – Making bold and italic – Setting colors – Text color – Superscripts and Subscripts – Striking out or Underlining text – Inserting Graphics – Scaling an Image – Images alignment – Creating banner – Adding horizontal rules – Wrapping text between two images – Ending text wrap – Adding space around an image – Using low resolution images.

(6 Hours)

## UNIT IV

**HTML:** Page layouts – Setting margins – Space between paragraphs – Leaving block of space – Line Breaks – Indents – Centering text – Creating columns – Setting background color – Block quotes - Tables – A way of representing data – Creating table – Dividing table into columns – Dividing table into horizontal sections – Creating headers – Adding a border – Putting a background image – Heading across two or more columns – Changing color of a Cell – Aligning the contents of cells – Display of tables

(6 Hours)

## UNIT V

**Working with Forms** – Creating a Form – Working with Menus – Working with Radio Buttons – Check Boxes – Text Boxes – Larger Text Areas – Password Boxes – Submit Button – Resetting the Form – Allowing Visitors to Upload File – Active Images.

(6 Hours)

**TEXT BOOK**

Ramesh Bangia (2010), *Internet and Web Design*, 2<sup>nd</sup> Edition, Firewall Media.

| UNIT       | CHAPTER   | PAGES                               |
|------------|-----------|-------------------------------------|
| <b>I</b>   | <b>1</b>  | <b>1 – 8 (Except Net Etiquette)</b> |
|            | <b>4</b>  | <b>54 - 64</b>                      |
| <b>II</b>  | <b>5</b>  | <b>68 – 79, 85</b>                  |
| <b>III</b> | <b>10</b> | <b>171 – 192</b>                    |
| <b>IV</b>  | <b>10</b> | <b>192 - 206</b>                    |
| <b>V</b>   | <b>10</b> | <b>206 - 216</b>                    |

| Course Code<br>20UCSN41 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | L   | L   | -   | -   | M   | -   | -   |
| CO2                     | L   | L   | L   | -   | M   | L   | -   |
| CO3                     | M   | M   | M   | M   | H   | L   | -   |
| CO4                     | M   | M   | -   | -   | -   | -   | -   |
| CO5                     | M   | M   | M   | L   | H   | L   | -   |

Dr. G. Karthigai Lakshmi  
Mrs. P. Aruna Devi  
Heads of the Departments

Ms.P.Raveena Lakshmi  
Course Designer



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**VIRUDHUNAGAR - 626 001**

### B.Sc. INFORMATION TECHNOLOGY

(2020 -2021 onwards)

|                    |                  |               |          |
|--------------------|------------------|---------------|----------|
| Semester III       | <b>MS-OFFICE</b> | Hours/Week: 2 |          |
| Non Major Elective |                  | Credits: 2    |          |
| Course -1          |                  | Internal      | External |
| Course Code        |                  | 40            | 60       |
| <b>20UITN31</b>    |                  |               |          |

### COURSE OUTCOMES

On completion of the course, the students will be able to

- CO1: recognize the MS-Office tools which enable the students in crafting professional word documents and excel spread sheet calculations in easier manner. [K1]
- CO2: demonstrate the document formatting ,editing and spell checking of documents, usage of formulas' and report preparation in work books to enhance their knowledge towards the MS-office tools. [K2]
- CO3: interpret the spreadsheet format to include formulas and functions in formula bar to perform business process calculations, document alignment with page borders and page numbers producing pathway to pursue higher education for students. [K2]
- CO4: capture the worksheet data in standard format to create different types of charts , formatted word document with foot notes are store for future reference which can be engage them in lifelong learning. [K3]
- CO5: practice the format of data and formulae, layout of worksheet content, applying theme in excel and working with document, thesaurus, mail merge in word to exhibit their skills to find solutions for specific domain problems. [K3]

## UNIT I

**Microsoft Windows vista :** Introduction – What’s new in Windows Vista – Desktop of Windows Vista – Exploring the taskbar – computer – Recycle bin – Creating shortcuts.

**Microsoft Office Word 2007 :** Introduction to Microsoft office word 2007 – Opening screen of Microsoft Word screen. (5 Hours)

## UNIT II

**Working with document in word 2007:** Introduction – Saving the file – Formatting the text – Alignment of text. - pplying fonts – Spell Checking – Consulting thesaurus – Assign Character Styles – Borders and Shading – Closing of the file – Save As option – Printing your document.

(7 Hours)

## UNIT III

**Working with document in word 2007:** The Editing document – Editing tools – Autocorrect – Auto format – Find and Replace – Find – Replace text – Page numbering – Header and Footer – Footnotes and Endnotes – Splitting panes – Tiling of the documents – Using Mail merge in Word 2007.

(5 Hours)

## UNIT IV

**Microsoft Office Excel 2007:** Understanding Spreadsheets – Creating a Worksheet in Excel 2007 – Copying formula – Formulas that make decisions – Styles – Functions in Excel – Using Auto calculate – References – Sum of function – Average function – Creating charts in Excel – Auditing a workbook – Comments inserting – Outlines – Worksheet fitting on a page – function wizard.

(7 Hours)

## UNIT V

**Microsoft Office Excel 2007:** Creating a Pivot table report – Typing with Autofill – Formatting numbers and labels – Changing the size of rows and columns – Adding and Deleting rows and columns – inserting page breaks – applying themes – Add or Remove a sheet background – Convert text to columns – Protect worksheet – Functions in excel.

(6 Hours)

## TEXT BOOK

Dinesh maidasani, *Learning computer fundamentals, MS Office and internet & web technology*, Laxmi Publications Pvt. Ltd., 3<sup>rd</sup> edition,.

| UNIT | SECTION | CHAPTER | PAGE NO.  |
|------|---------|---------|-----------|
| I    | B       | 1       | 3 – 13    |
|      |         | 2       | 57 - 86   |
| II   | B       | 3       | 91 - 103  |
| III  | B       | 3       | 104 - 117 |
| IV   | B       | 4       | 121 - 148 |
| V    | B       | 4       | 151 - 169 |

### REFERENCE BOOKS

1. William Fischer, *Excel: A Quick Start Guide from Beginner to Expert*, Cassell Publications.
2. Rapidex Editorial Team. (2016). *Rapidex Computer Course*, Rapidex Publications, Reprint and Updated Edition.
3. Kevin Wilson, *Essential Office 365 The Illustrated Guide to Using Microsoft office*, Elluminet Press.

| Course Code<br>20UITN31 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | H   | L   | L   | H   | L   | H   | L   |
| CO2                     | H   | L   | M   | M   | M   | L   | L   |
| CO3                     | H   | L   | L   | H   | H   | M   | L   |
| CO4                     | H   | M   | H   | M   | H   | M   | L   |
| CO5                     | H   | L   | H   | H   | H   | M   | L   |

Dr. (Mrs).A.Bharathi Lakshmi  
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VIRUDHUNAGAR - 626 001

### B.Sc. INFORMATION TECHNOLOGY

(2020-2021 onwards)

|                                |                             |               |          |
|--------------------------------|-----------------------------|---------------|----------|
| Semester IV                    | <b>INTRODUCTION TO HTML</b> | Hours/Week: 2 |          |
| Non Major Elective             |                             | Credits: 2    |          |
| Course - 2                     |                             | Internal      | External |
| Course Code<br><b>20UITN41</b> |                             | 40            | 60       |

### COURSE OUTCOMES

On completion of the course, the students will be able to

- CO1: describe the basic HTML Commands of tags, text formatting, list and text effects for the emphasizing elements (bold, italic, and sizing), header elements, and color applying the software aspects of computer systems. [K1]
- CO2: extend the concepts of list, table, Hyper Links and frames for dividing the web browser window into multiple sections for developing technical project reports. [K2]
- CO3: associate the customized web pages by formatting the lists of information in well-formed and semantic way with the usage of links and form tags to solve computational problems in real world based on their carrier. [K2]
- CO4: manipulate webpages text styles with lists, tables of bordering attributes with background color, and able to perform different actions using Image Map and Frame Tags to apply current technical concepts and practices. [K3]
- CO5: discover the web pages with graphic tools and text effects with images for designing the Forms and activate the Link for achieving technical project. [K3]

### UNIT I

**Introduction to Html:** Hyper Text Markup Language (HTML) – Commonly Used HTML Commands – Titles and Footers – Text Formatting – Emphasizing Material in a Web Page – Text Styles – Other Text Effects. (7 Hours)

**UNIT II**

**Lists:** Types of Lists: Ordered List and Unordered List – Definition List. (5 Hours)

**UNIT III**

**Tables:** Using the Width and Border Attribute – Using the Cell Padding Attribute -Using the Cell Spacing Attribute - Using the Bgcolor Attribute - Using the Colspan and Row span attributes. (6 Hours)

**UNIT IV**

**Linking Documents:** Links: External & Internal Reference – Hyper Linking to a HTML File – Linking to a Particular Location in a Separate Document -Image as Hyper Links – Image Maps. (6 Hours)

**UNIT V**

**Frames:** Introduction to Frames: Frame Tag – Targeting Named Frames . (6 Hours)

**TEXT BOOK**

Ivan Bayross, (2007). *Web Enabled Commercial Application Development Using HTML, DHTML, JavaScript, Perl CGI*, BPB Publication, 3<sup>rd</sup> Revised Edition.

| UNIT | CHAPTER | PAGE NO. |
|------|---------|----------|
| I    | 2       | 15 – 27  |
| II   | 3       | 32 – 25  |
| III  | 5       | 44 – 51  |
| IV   | 6       | 53 – 66  |
| V    | 7       | 68 – 77  |

**REFERENCE BOOKS**

1. Gopalan, N.P. & Akilandeswari, J. (2007). *Web Technology*, Prentice Hall of India.
2. Deital & Deital (2004). *Internet and World Wide Web - How to Program*, Pearson Education, 3<sup>rd</sup> Edition.

| Course Code<br>20UITN41 | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 |
|-------------------------|------|------|------|------|------|------|------|
| CO 1                    | H    | H    | L    | L    | M    | L    | L    |
| CO 2                    | H    | M    | M    | L    | H    | L    | L    |
| CO 3                    | H    | M    | H    | M    | H    | L    | L    |
| CO 4                    | H    | H    | M    | M    | H    | L    | L    |
| CO 5                    | H    | H    | H    | M    | H    | L    | L    |

Dr. (Mrs).A.Bharathi Lakshmi  
Head of the Department

Mrs.D.Shunmuga Kumari  
Course Designer





## V.V.VANNIAPERUMAL COLLEGE FOR WOMEN

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VIRUDHUNAGAR - 626 001

### B.Sc. INFORMATION TECHNOLOGY (2022 -2023 onwards)

|                                 |                             |                |                |
|---------------------------------|-----------------------------|----------------|----------------|
| Semester IV                     | <b>INTRODUCTION TO HTML</b> | Hours/Week: 2  |                |
| NMEC - 2                        |                             | Credits: 2     |                |
| Course Code<br><b>20UITN41N</b> |                             | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, the students will be able to

- Describe the basics of Internet Concepts, HTML Commands of tags, text formatting, list and text effects for the emphasizing elements (bold, italic, and sizing), header elements, and color applying the software aspects of computer systems– **K1**
- generalize the concepts of list, table, Hyper Links and frames for dividing the web browser window into multiple sections for developing technical project reports – **K2**
- associate the customized web pages by formatting the lists of information in a well-formed and semantic way with the usage of links and form tags to solve computational problems in the real world based on their carrier. – **K2**
- Manipulate web pages text styles with lists, tables of bordering attributes with background color, and able to perform different actions using Image Map and Frame Tags to apply current technical concepts and practices – **K3**
- Develop the web pages with graphic tools and text effects with images for designing the Forms and activate the Link for achieving technical project – **K3**

### UNIT I

**Internet Basics :** Basic Concepts – Communicating on the Internet – Internet Domains- Internet Server Identities – Establishing Connectivity on the Internet – Client IP Address – How IP Addressing came into existence – A Brief overview of TCP/IP and its services – Transmission Control Protocol – FTP – Telnet.

**Introduction to Html:** Hyper Text Markup Language (HTML) – Commonly Used HTML Commands – Titles and Footers – Text Formatting – Emphasizing Material in a Web Page – Text Styles – Other Text Effects.

(7 Hours)

**UNIT II**

**Lists:** Types of Lists: Ordered List and Unordered List – Definition List. (5 Hours)

**UNIT III**

**Tables:** Using the Width and Border Attribute – Using the Cell Padding Attribute -Using the Cell Spacing Attribute - Using the Bgcolor Attribute - Using the Colspan and Row span attributes. (6 Hours)

**UNIT IV**

**Linking Documents:** Links: External & Internal Reference – Hyper Linking to a HTML File – Linking to a Particular Location in a Separate Document -Image as HyperLinks – Image Maps. (6 Hours)

**UNIT V**

**Frames:** Introduction to Frames: Frame Tag – Targeting Named Frames . (6 Hours)

**TEXT BOOK**

Ivan Bayross, (2007). *Web Enabled Commercial Application Development Using HTML, DHTML, JavaScript, Perl CGI*, BPB Publication, 3<sup>rd</sup> Revised Edition.

| UNIT | CHAPTER | PAGE NO.          |
|------|---------|-------------------|
| I    | 1, 2    | 1 – 11<br>15 – 27 |
| II   | 3       | 32 – 25           |
| III  | 5       | 44 – 51           |
| IV   | 6       | 53 – 66           |
| V    | 7       | 68 – 77           |

**REFERENCE BOOKS**

1. Gopalan, N.P. & Akilandeswari, J. (2007). *Web Technology*, Prentice Hall of India.
2. Deital & Deital (2004). *Internet and World Wide Web - How to Program*, Pearson Education, 3<sup>rd</sup> Edition.

| Course Code<br>(20UITN41N) | Disciplinary Knowledge |         | Communication Skills |         | Scientific Reasoning and Problem Solving | Critical Thinking and Analytical Reasoning | Digital Literacy, Self - directed and Lifelong Learning |         | Cooperation/ Team Work and Multi-Cultural Competence | Moral and Ethical Awareness |
|----------------------------|------------------------|---------|----------------------|---------|--|--|---|---------|--|-----------------------------|
|                            | PSO 1.a                | PSO 1.b | PSO 2.a              | PSO 2.b | PSO 3                                    | PSO 4                                      | PSO 5.a   | PSO 5.b | PSO 6  | PSO 7                       |
| CO 1                       | H                      | M       | L                    | H       | H  | L  | H   | H       | H  | L                           |
| CO 2                       | H                      | H       | L                    | M       | M  | L  | H   | M       | M  | L                           |
| CO 3                       | H                      | H       | L                    | M       | H  | M  | H   | H       | H  | L                           |
| CO 4                       | H                      | H       | M                    | H       | M  | M  | H   | M       | M  | L                           |
| CO 5                       | H                      | H       | L                    | H       | H  | M  | H   | H       | M  | L                           |

Dr.(Mrs).A.Bharathi Lakshmi  
Head of the Department

Mrs.G.Chandrababha  
Course Designer



## V.V.VANNIAPERUMAL COLLEGE FOR WOMEN

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**VIRUDHUNAGAR - 626 001**

**B.C.A.**

**(2020 -21 onwards)**

|                                 |                                      |                |                |
|---------------------------------|--------------------------------------|----------------|----------------|
| Semester III                    | <b>FUNDAMENTALS OF<br/>COMPUTERS</b> | Hours/Week: 2  |                |
| Non Major Elective<br>Course -1 |                                      | Credits: 2     |                |
| Course Code<br><b>20UCAN31</b>  |                                      | Internal<br>40 | External<br>60 |

### **COURSE OUTCOMES**

On successful completion of the course, the learners will be able to

- CO1 : outline the basics of computer, purpose of input/output devices, various input technologies and progress of computer languages from machine level to high level. [K1]
- CO2 : recognize the evaluation of arithmetic operations by the processor, the registers involved in arithmetic operations and about the evolution and classification of computers. [K1]
- CO3 : classify different kinds of input/output technologies, machine, assembly, high level languages and computers. [K2]
- CO4 : interpret problem solving using computers through the concepts of algorithms, computer model, its characteristics and computer generation & classification. [K2]
- CO5 : acquire the knowledge of computer basics, input/output devices, calculating arithmetic operations using computers, programming languages, generation and classification of computers. [K3]

**UNIT I**

**Computer Basics:** Algorithms – Simple Model of a Computer – Characteristics of Computers – Problem Solving Using Computers.

(6 Hours)

**UNIT II**

**Input / Output Units:** Traditional Computer Input/Output Units – Other Input Technologies (MICR, OMR, Optical Character Recognizer, Bar code) – Computer Output Devices (Printers, Inkjet Printers, Laser Printers, Dot Matrix Printers, Line Printers, Plotters).

(6 Hours)

**UNIT III**

**Binary Arithmetic:** Binary Addition – Binary Subtraction – Signed Numbers – Two's Complement Representation of Numbers – Addition/Subtraction of Numbers in 2's Complement Notation – Binary Multiplication – Binary Division.

(6 Hours)

**UNIT IV**

**Programming Languages:** Why Programming Language? – Assembly Language – Higher Level Programming Languages – Compiling a High Level Language Programs.

(6 Hours)

**UNIT V**

**Computer generation and classification:** First Generation of Computers - Second Generation – Third generation – Fourth generation –Fifth generation – Classification of Computers – Distributed Computer System – Parallel Computers.

(6 Hours)

**TEXT BOOK**

Rajaraman, V. &NeeharikaAdabala, (2015).*Fundamentals of Computers*, PHI,6<sup>th</sup> Edition.

| Unit | Chapter | Section  |
|------|---------|--|
| I    | 1       | 1.1 – 1.4  |
| II   | 3       | 3.1, 3.2 (3.2.3, 3.2.4, 3.2.6, 3.2.7), 3.3 (3.3.3 – 3.3.8) |
| III  | 6       | 6.1 – 6.7  |
| IV   | 9       | 9.1 – 9.4  |
| V    | 12      | 12.1 – 12.5, 12.7 - 12.9                                   |

**REFERENCE BOOKS**

1. Anna Treby, Cassell, (1998). *An Introduction to Information Technology*.
2. Peter Zorkoczy & Pitman, (1990). : *An Introduction to Information Technology*, 3<sup>rd</sup> Edition.
3. Alexis Leon & Mathews Leon, (2009). *Fundamentals of Information Technology*, 2<sup>nd</sup> Edition. Vikas Publishing House Pvt. Ltd.

| Course Code<br>20UCAN31 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | L   | M   | -   | -   | -   | -   | -   |
| CO2                     | L   | M   | -   | -   | -   | -   | -   |
| CO3                     | L   | M   | -   | -   | -   | -   | -   |
| CO4                     | L   | M   | -   | -   | -   | -   | -   |
| CO5                     | L   | M   | -   | -   | -   | -   | -   |

J.Porkodi  
Head of the Department

R.Nancy Beulah  
Course Designer



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**VIRUDHUNAGAR - 626 001**

**B.C.A.**

**(2020 -21 onwards)**

|                                 |                             |                |                |
|---------------------------------|-----------------------------|----------------|----------------|
| Semester IV                     | <b>WEB DESIGN WITH HTML</b> | Hours/Week: 2  |                |
| Non Major Elective<br>Course -2 |                             | Credits: 2     |                |
| Course Code<br><b>20UCAN41</b>  |                             | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On successful completion of the course, the learners should be able to

CO1 : Basic knowledge and skills utilizing various HTML tags for designing a static web page. [K1]

CO2 : Describe the History and generation of HTML, designing the HTML documents. The concepts about lists, table handling, image tag, frameset and forms. [K1]

CO3 : Elaborate frameset and forms tags, background and formatting characters of the web page in web based applications. [K2]

CO4 : Define Hyper Links, anchor tag, identify paragraph, differentiate the levels of heading tag, classify the list in HTML tags, discuss about table handling. [K2]

CO5 : Demonstrate web based application programs, server-side & client-side programming. [K3]

### UNIT I

**Introduction to HTML:** Designing a home page – History of HTML – HTML generations – HTML documents – Anchor tag – Hyper Links – Sample HTML Documents.

(6 hours)

### UNIT II

**Head and Body Sections:** Header sections – Title – Prologue – Links – Colorful web page –

Comment lines – Some sample HTML documents. **Designing the Body Section:** Heading printing – Aligning the headings – Horizontal Rule – Paragraph – Tab settings – Images and pictures- Embedding PNG format images. (6 hours)

### UNIT III

**Ordered and Unordered lists:** Lists – Unordered lists – Headings in a list – Ordered lists – Nested lists. **Table Handling:** Tables – Table creation in HTML – Width of the Table and Cells– Cells spanning multiple rows/columns – Coloring cells – Column specification – Some sample tables (6 hours)

### UNIT IV

**Frames:** Frameset definition – Frame definition – Nested framesets. **A web page design project:** Frameset definition – Animals – Birds – Fish. (6 hours)

### UNIT V

**Forms:** Action attribute – Method attribute – Enctype attribute – Drop down List – Sample Forms. (6 hours)

### TEXT BOOK

Xavier,C.(2008). *World Wide Web Design with HTML*, Nineteenth Reprint, Tata McGraw Hill Publishing Company.

| Unit | Chapter |
|------|---------|
| I    | 4       |
| II   | 5, 6    |
| III  | 7, 8    |
| IV   | 10, 11  |
| V    | 12      |

### REFERENCE BOOKS

1. Ivan Bayross, (2010). *Web Enabled Commercial Application Development using HTML*, 4<sup>th</sup> revised Edition. BPB Publications.
2. Thomas A.Powell, (2010). *The Complete Reference HTML and CSS*, 5<sup>th</sup> Edition. Mc.GrawHill. Steven Holzner, (2000). *HTML Black Book*, Dreamtech Press.



| Course Code<br>20UCAN41 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | M   | L   | -   | -   | M   | -   | -   |
| CO2                     | M   | L   | L   | -   | M   | L   | -   |
| CO3                     | M   | M   | M   | M   | H   | L   | -   |
| CO4                     | M   | L   | -   | -   | -   | -   | -   |
| CO5                     | M   | M   | M   | L   | H   | L   | -   |

J.Porkodi  
Head of the Department

V.G. Jyothi Mani  
Course Designer



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**VIRUDHUNAGAR - 626 001**

**2020-2021**

|                                |                       |                |                |
|--------------------------------|-----------------------|----------------|----------------|
| Semester III                   | <b>HORTICULTURE I</b> | Hours/Week: 2  |                |
| Non Major Elective Course -1   |                       | Credits: 2     |                |
| Course Code<br><b>20UBYN31</b> |                       | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, students will be able to

- CO1: define types of Horticulture methods. [K1]
- CO2: describe the importance and essentials of Horticulture. [K2]
- CO3: compare various Horticultural methods. [K2]
- CO4: identify the applications of Horticulture. [K3]
- CO5: apply innovative agro- techniques to enhance the production and productivity of horticultural crops. [K3]

### UNIT I

Introduction, scope, divisions and importance of horticulture. Role of horticulture in industrial development. Commercial cultivation of Flowers, Foliage and fruits. (6 Hours)

### UNIT II

Basic requirements – soil manures, organic fertilizers, inorganic fertilizers and bio fertilizers, methods of application of bio fertilizers. Mass production, field application and its beneficial role (6 Hours)

### UNIT III

Garden implements used for land preparation –crowbar, axe, spade, sprayer, watering can, pruning shears, secateurs, digging fork. hosepipe and knives. Precautions, care and maintenance of using tools. (6 Hours)

**UNIT IV**

Vegetative propagation – Budding- T-Budding, Patch budding and chip budding. Cutting – types of cuttings - stem cuttings-semi hard wood cutting and soft wood cutting, leaf cuttings-and root cuttings. Advantages of vegetative propagation (6 Hours)

**UNIT V**

Layering – types of layering - simple layering and compound layering and air layering Advantages and factors affecting layering. Grafting- types of grafting - whip and cleft grafting. Advantages of grafting. (6 Hours)

**TEXT BOOKS**

1. Kumar, N. (1999). *Introduction to Horticulture*, Nagercoil: Rajalakshmi Publications.
2. Manibhushan Rao, K. (1995). *Text Book of Horticulture*, Delhi: MacMillan India Ltd.,

**REFERENCE BOOKS**

1. Adames, C.R. & M.P. Early. (2004). *Principles of Horticulture*, Butterworth, 4<sup>th</sup> Edition.
2. Singh, D.B. & Wazir. P. (2002). *Bonsai – An Art*, Jodhpur, India: Scientific Publishers.
3. Janick, J. (1979). *Horticultural Science*, New Delhi, India: Surjeet Publications.

| Course Code<br>20UBYN31 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | H   | M   | M   | M   | L   | L   | -   |
| CO2                     | H   | M   | M   | M   | L   | L   | -   |
| CO3                     | H   | M   | M   | M   | L   | L   | -   |
| CO4                     | H   | M   | M   | M   | L   | L   | -   |
| CO5                     | H   | M   | M   | M   | L   | L   | -   |

Dr. B. Karunai Selvi  
Head of the Department

Dr.R.Sreebha  
Course Designer



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**VIRUDHUNAGAR - 626 001**

**2020-2021**

|                                 |                        |                |                |
|---------------------------------|------------------------|----------------|----------------|
| Semester IV                     | <b>HORTICULTURE II</b> | Hours/Week: 2  |                |
| Non Major Elective<br>Course -2 |                        | Credits: 2     |                |
| Course Code<br><b>20UBYN41</b>  |                        | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, students will be able to

- CO1: Find the types of horticultural crop. [K1]
- CO2: Compare and classify the various methods of crop management through horticultural techniques. [K2]
- CO3: Outline the rules and regulations of maintaining Horticultural methods. [K2]
- CO4: Practice the management and establishment of Horticulture. [K3]
- CO5: Identify the efficiency of horticultural crops. [K3]

### UNIT I

Kitchen garden- Introduction -selection of site- size and shape- Layout.Live fencing and hedges. (6 Hours)

### UNIT II

Orchard- Establishment of orchard- selection of locality- selection of site- site development – planning of orchard – layout. (6 Hours)

### UNIT III

Indoor gardening- Hanging pots- significance of hanging of hanging pots

Bonsai- Selection of plants, selection of container, making pots mixture, planting, watering, manure, importance of bonsai. (6 Hours)

### UNIT IV

Green houses – simple green houses, commercial green houses- conservatories

(6 Hours)

**UNIT V**

Methods of preservation of fruits and storage of fruits.

(6 Hours)

**TEXT BOOKS**

1. Kumar, N. (1999). *Introduction to Horticulture*, Nagercoil: Rajalakshmi Publications.
2. Manibhushan Rao, K. (1995). *Text Book of Horticulture*, Delhi: MacMillan India Ltd.,

**REFERENCE BOOKS**

1. Adames, C.R. & M.P. Early. (2004). *Principles of Horticulture*, Butterworth, 4<sup>th</sup> Edition.
2. Singh, D.B. & Wazir. P. (2002). *Bonsai – An Art*, Jodhpur, India: Scientific Publishers.
3. Janick, J. (1979). *Horticultural Science*, New Delhi, India: Surjeet Publications

| Course Code<br>20UBYN41 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | H   | M   | M   | M   | L   | L   | -   |
| CO2                     | H   | M   | M   | M   | L   | L   | -   |
| CO3                     | H   | M   | M   | M   | L   | L   | -   |
| CO4                     | H   | M   | M   | M   | L   | L   | -   |
| CO5                     | H   | M   | M   | M   | L   | L   | -   |

Dr. B. Karunai Selvi  
Head of the Department

Dr.R.Sreebha  
Course Designer



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**VIRUDHUNAGAR - 626 001**

2020-2021

|                                |                              |                |                |
|--------------------------------|------------------------------|----------------|----------------|
| Semester III                   | மருத்துவத் தாவரவியல் பகுதி I | Hours/Week:2   |                |
| Non Major Elective Course - 1  |                              | Credits: 2     |                |
| Course Code<br><b>20UBYN32</b> |                              | Internal<br>40 | External<br>60 |

**கற்றல் வெளிப்பாடு**

இந்தப் பாடத்திட்டம் முடிந்த பிறகு, மாணவர்கள் கீழ்க்கண்டவற்றை அறிந்து கொள்வார்கள்

CO1: மருத்துவ குணம் உள்ள தாவரங்களின் பெயர்களைப் பற்றிய அறிமுகம். [K1]

CO2: மருத்துவ குணம் உள்ள தாவரங்களின் வளரியல்பு மற்றும் வெளிப்புறத் தோற்றம் பற்றிய விளக்கம். [K2]

CO3: மருத்துவ குணம் உள்ள தாவரங்களின் வேதிப் பொருட்கள் பற்றி விவரித்தல். [K2]

CO4: மருத்துவ குணம் உள்ள தாவரங்களின் பயன்கள். [K3]

CO5: அன்றாட வாழ்வின் பயன்படும் தாவரங்களின் மருத்துவ குணங்கள். [K3]

**UNIT I**

மருத்துவ தாவரவியல் - அறிமுகம், வரலாறு, ஆயுர்வேதா மற்றும் சித்த மருத்துவ முறைகள்

வீட்டுத் தோட்டத்தில் மூலிகைகள்:

வீட்டுத் தோட்டத்தில் வளர்க்கக்கூடிய மூலிகை இனங்கள் மற்றும் மருத்துவப் பயன்கள்

அருகம்புல் (*Cynodon dactylon*), துளசி (*Ocimum sanctum*), தூதுவளை (*Solanum trilobatum*), மற்றும் நிலவேம்பு (*Andrographis paniculata*) (6 மணி நேரம்)

**UNIT II**

அந்நியச்செலவாணி ஈட்டித்தரும் மூலிகைகள்

மிளகு (*Piper nigrum*), ஏலம் (*Elettaria cardamomum*), திருநெல்வேலிச் சென்னா (*Cassia senna*), நிதிராய கல்யாணி (*Catharanthus roseus*), வல்லாரை (*Centella asiatica*) (6 மணி நேரம்)

### UNIT III

#### காயகற்ப மூலிகைகள் - வகைகள்

காயகற்ப மூலிகைகள் - கரிசாலை (*Eclipta prostrata*), செம்மூலிகைகள் - செங்கற்றாழை (*Aloe barbadensis*), வெண்மூலிகைகள்- வெண்துத்தி (*Abutilon indicum*) மற்றும்பொன்நிற மூலிகைகள் (*Tinospora malabarica*) (6மணி நேரம்)

### UNIT IV

#### புவாத்தாரங்களின் மருத்துவப் பயன்கள்

- பாசிகளின் (Algae) மருத்துவப் பயன்கள்
  - பூஞ்சைகளின் (Fungi) மருத்துவப் பயன்கள்
  - பாசிக் காளான்களின் (Lichens) மருத்துவப் பயன்கள்
  - பெரணிகளின் (Ferns) மருத்துவப் பயன்கள்
- (6 மணி நேரம்)

### UNIT V

#### நஞ்சுத் தாவரங்கள்

தாவரநஞ்சு, தாவர நஞ்சுகளின் செய்கை, நஞ்சுநிலைகள், நஞ்சுக்கு மருத்துவம்,

அபினி(*Papaver somniferum*), அரளி (*Nerium oleander*), ஊமத்தை (*Datura innoxia*),மற்றும் செங்காந்தள் கிழங்கு (*Gloriosa superba*). (6 மணி நேரம்)

### TEXT BOOKS

Daniel, M. (2006). *Medicinal Plants – Chemistry and Properties*, New Delhi:

Oxford and IBH Publishing Co. Pvt. Ltd.,

சோமசுந்தரம். (1997). மருத்துவ தாவரவியல், இளங்கோவன் பதிப்பகம், திருநெல்வேலி, இந்தியா.

Thirugnanam, S., M.A. Akbarsha and K.V. Krishnamurthy. (2010). *Indian Medicinal Plants and Home Remedies*: Trichy, India: Selvi Pathippaham.

### REFERENCE BOOKS

Warrier, P.K., V.P. K. Nambiar and C. Ramankutty. (1994). *Indian Medicinal Plants – a compendium of 500 species*: Vaidyaratnam P.S. Varier's Arya Vaidya Sala, Kottakkal, Chennai: Orient Longman Publications.

Mohammed Ali, (1994). *Text book of Pharmacognosy*: New Delhi: CBS Publishers and Distributors.

| Course Code<br>20UBYN32 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | H   | M   | M   | M   | L   | L   | -   |
| CO2                     | H   | M   | M   | M   | L   | L   | -   |
| CO3                     | H   | M   | M   | M   | L   | L   | -   |
| CO4                     | H   | M   | M   | M   | L   | L   | -   |
| CO5                     | H   | M   | M   | M   | L   | L   | -   |

Dr. B. Karunai Selvi  
Head of the Department

Dr.B. Karunai selvi  
Course Designer





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**VIRUDHUNAGAR - 626 001**

2020-2021

|                              |                                      |                |                |
|------------------------------|--------------------------------------|----------------|----------------|
| Semester IV                  | <b>மருத்துவத் தாவரவியல் பகுதி II</b> | Hours/Week: 2  |                |
| Non Major Elective Course -2 |                                      | Credits: 2     |                |
| Course Code<br>20UBYN42      |                                      | Internal<br>40 | External<br>60 |

**கற்றல் வெளிப்பாடு**

இந்தப் பாடத்திட்டம் முடிந்த பிறகு, மாணவர்கள் கீழ்க்கண்டவற்றை அறிந்து கொள்வார்கள்

CO1: மருந்திற்கு பயன்படும் தாவரங்களின் பாகங்கள் பற்றிய அறிமுகம். [K1]

CO2: மருந்திற்கு பயன்படும் தாவரங்களின் பாகங்கள் வெளிப்புறத் தோற்றம் பற்றிய விளக்கம். [K2]

CO3: மருந்திற்கு பயன்படும் தாவரங்களின் பாகங்களின் வேதிப் பொருட்கள் பற்றி விவரித்தல். [K2]

CO4: மருந்திற்கு பயன்படும் தாவரங்களின் பாகங்களின் பயன்கள். [K3]

CO5: அன்றாட வாழ்வின் பயன்படும் மருந்திற்கு பயன்படும் தாவரங்களின் பாகங்கள் குணங்கள் [K3]

### UNIT I

**மருந்திற்கு பயன்படும் இலைகள் :-**

- இலைகளை சேகரித்தலும், உலர வைத்தலும்.
- குப்பை மேனி (*Acalypha indica*),
- பொன்னாங்காணி (*Alternanthera sessilis*),
- ஆடாதோடை (*Justicia adhatoda*)
- வெற்றிலை (*Piper betle*)

(6 மணி நேரம்)

### UNIT II

**மருந்திற்குப் பயன்படும் மலர்கள்**

- மலர்களையும், மலர்களின் பாகங்களையும் சேகரித்தல், உலர்த்துதல்
- ஆவாரம் பூ (*Cassia auriculata*), செம்பருத்தி பூ (*Hibiscus rosa-sinensis*)
- கிராம்பு (*Syzygium aromaticum*), குங்குமப்பூ (*Crocus sativus*)
- மகிழம் பூ (*Mimusops elengi*)

(6 மணி நேரம்)

### UNIT III

**மருந்திற்குப் பயன்படும் கனிகள்**

- கனிகளை சேகரித்தல், உலர்த்துதல், மற்றும் பதப்படுத்துதல்

- நெல்லி (*Phyllanthus emblica*), தான்றிக்காய் (*Terminalia bellerica*), கடுக்காய் (*Terminalia chebula*), மற்றும் நஞ்சீரகம் (*Cuminum cyminum*)

(6 மணி நேரம்)

#### UNIT IV

##### மருந்திற்குப் பயன்படும் விதைகள்

- விதைகளின் பாகங்கள்
- விதையில் காணப்படும் மருத்துவப்பயன் உடைய சேமிப்புப் பொருட்கள்
- கருஞ்சீரகம் (*Nigella sativa*), ஓமம் (*Trachyspermum ammi*), எட்டி (*Strychnos nux-vomica*) மற்றும் கழற்சிக்காய் (*Casealpinia crista*)

(6 மணி நேரம்)

#### UNIT V

##### மருந்திற்குப் பயன்படும் ிருந்துகள்

- ிருந்து (Acorus calamus), ிருந்து (Allium cepa), ிருந்து (Allium sativum),
- ிருந்து (Curcuma longa), ிருந்து (Zingiber officinale)

(6 மணி நேரம்)

#### TEXT BOOKS

Daniel, M. (2006). *Medicinal Plants – Chemistry and Properties*, New Delhi:

Oxford and IBH Publishing Co. Pvt. Ltd.,

சோமசுந்தரம். (1997). மருத்துவ தாவரவியல், இளங்கோவன் பதிப்பகம், திருநெல்வேலி, இந்தியா.

Thirugnanam, S., M.A. Akbarsha and K.V. Krishnamurthy. (2010). *Indian Medicinal Plants and Home Remedies*: Trichy, India: Selvi Pathippaham.

#### REFERENCE BOOKS

Warrier, P.K., V.P. K. Nambiar and C. Ramankutty. (1994). *Indian Medicinal Plants – a compendium of 500 species*: Vaidyaratnam P.S. Varier's Arya Vaidya Sala, Kottakkal, Chennai: Orient Longman Publications.

Mohammed Ali, (1994). *Text book of Pharmacognosy*: New Delhi: CBS Publishers and Distributors.

| Course Code<br>20UBYN42 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | H   | M   | M   | M   | L   | L   | -   |
| CO2                     | H   | M   | M   | M   | L   | L   | -   |
| CO3                     | H   | M   | M   | M   | L   | L   | -   |
| CO4                     | H   | M   | M   | M   | L   | L   | -   |
| CO5                     | H   | M   | M   | M   | L   | L   | -   |

Dr.B. Karunai selvi  
Head of the Department

Dr.B. Karunai selvi  
Course Designer



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VIRUDHUNAGAR - 626 001

### NON MAJOR ELECTIVE COURSE

(2020-2021 onwards)

|                                |  |                |                |
|--------------------------------|--|----------------|----------------|
| Semester III                   | <b>LIBRARY AND INFORMATION<br/>SCIENCE-1</b> | Hours/Week: 2  |                |
| Non Major Elective<br>Course-1 |  | Credits: 2     |                |
| Course Code<br><b>20ULSN31</b> |  | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, students will be able to

CO1: explain the concepts of library and information science. [K1]

CO2: classify and compare the types libraries. [K1]

CO3: infer the information sources and services for self directed learning. [K2]

CO4: explore the laws of library science and its implications. [K2]

CO5: apply ICT in libraries for automation. [K3]

### UNIT I

#### Library and Information Centres: concepts and role in society

Definition of a library – Purpose and functions of a library – Role of libraries in society and education – Information centres – Difference between a library and information centre - Libraries and information centres of information age. (5 Hours)

### UNIT II

#### Types of libraries and information centres

Types of libraries – Public library-objectives - Academic library - objectives, types - Special library - objectives, types - National library – objectives. (6 Hours)

### UNIT III

#### Five laws of library science

Five laws of library science – basic implications of five laws of library science – Modern version of laws in different contexts - American interpretation, Carol Simpson laws -Five laws and modern libraries (7 Hours)

## UNIT IV

### Introduction to information sources

Definition of information – Information sources – History of information sources-  
Types of information sources-Documentary and non-documentary - primary, secondary and  
tertiary (6 Hours)

## UNIT V

### Modern library : automated, digitized and virtual

Impact of computers in modern society - Library automation - Areas of application of  
library automation – Salient features of automated library- ILMS Software - FOSS - Digital and  
Virtual libraries (6 Hours)

### Study material compiled from online e-resources

**UNIT I:** [https://nios-ac.in/media/documents/SrSecLibrary/LCh-](https://nios-ac.in/media/documents/SrSecLibrary/LCh-001.pdf)

[001.pdf](http://www.ifla.org/files/assets/literacy-and-reading/publications/role-of-libraries-in-creation-of-literate-environments.pdf)<http://www.ifla.org/files/assets/literacy-and-reading/publications/role-of-libraries-in-creation-of-literate-environments.pdf>

<http://www.egyankosh.ac.in>

**UNIT II:** [https://nios-ac.in/media/documents/SrSecLibrary/LCh-](https://nios-ac.in/media/documents/SrSecLibrary/LCh-002.pdf)

[002.pdf](http://www.ala.org/educationcareers/careers/librarycareersite/)<http://www.ala.org/educationcareers/careers/librarycareersite/> types of libraries

**UNIT III:** [https://nios-ac.in/media/documents/SrSecLibrary/LCh-](https://nios-ac.in/media/documents/SrSecLibrary/LCh-004.pdf)

[004.pdf](http://en.wikipedia.org/wiki/Five_laws_of_library_science)[http://en.wikipedia.org/wiki/Five\\_laws\\_of\\_library\\_science](http://en.wikipedia.org/wiki/Five_laws_of_library_science)<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.391.5657&rep=rep1&type=pdf>

**UNIT IV:** <https://nios-ac.in/media/documents/SrSecLibrary/LCh-005.pdf>

<https://hsl.lib.umn.edu/biomed/help/primary-secondary-and-tertiary-sources-health-sciences>

<https://library.albany.edu/infolit/prisci>

**UNIT V:** <https://nios-ac.in/media/documents/SrSecLibrary/LCh-003.pdf><http://www.nmlindia.nic.in/>

<https://archive.org/details/digitallibraryindia>

## REFERENCE BOOKS

1. Girija Kumar and Krishan Kumar, Bibliography, New Delhi: Vikas Publishing House Pvt. Ltd., 1979.
2. Harrod (Leonard Montague), The Librarians' Glossary: and reference book; of terms in librarianship, documentation and the book crafts, London: Clarion Books, 1977.
3. Dutta (D N), Libraries and their Uses: a guide for the users; Calcutta: The World Press Pvt. Ltd., 1975.
4. Ranganathan, (S R), Documentation: genesis and development, Delhi: Vikas

Publishing House Pvt. Ltd., 1973.

5. Ranganathan, (S R), Library Manual: for library authorities, librarians and honorary library workers, Bombay: Asia Publishing House, 1962.

## REFERENCE WEBSITES

**UNIT I:** <http://www.cobdc.org/jornades/7JCD/ryynanen.pdf>

**UNIT I:** <https://hubpages.com/literature/The-three-main-types-of-library>  
<http://www.netugc.com/librarians-in-different-types-of-libraries>

**UNIT III:** <http://aims.fao.org/activity/blog/five-laws-library-science-detailing-principles-operating-library-system>

**UNIT IV:** <http://www.booksshouldbefree.com/>  
<https://guides.library.cornell.edu/primary>

**UNIT V:** <https://ndl.iitkgp.ac.in/>  
<http://www.math.fsu.edu/>  
<http://vlib.org/>

| Course Code | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------|-----|-----|-----|-----|-----|-----|-----|
| 20ULSN31    |     |     |     |     |     |     |     |
| CO1         | H   | M   | -   | -   | M   | -   | -   |
| CO2         | H   | H   | -   | -   | M   | -   | -   |
| CO3         | H   | M   | -   | -   | H   | -   | M   |
| CO4         | H   | M   | -   | -   | M   | -   | -   |
| CO5         | H   | M   | -   | -   | M   | -   | -   |

Dr.P.Clara Jeyaseeli  
Head of the Department

Dr.P.Clara Jeyaseeli  
Course D



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VIRUDHUNAGAR - 626 001

### NON MAJOR ELECTIVE COURSE

(2020-2021 onwards)

|                                |  |                |                |
|--------------------------------|--|----------------|----------------|
| Semester IV                    | <b>LIBRARY AND INFORMATION<br/>SCIENCE-2</b> | Hours/Week: 2  |                |
| Non Major<br>Elective Course-2 |  | Credits: 2     |                |
| Course Code<br><b>20ULSN41</b> |  | Internal<br>40 | External<br>60 |

#### Course Outcomes

On completion of the course, the students will be able to

CO1: mention the information sources in detail. [K1]

CO2: discuss the basic elements related to library materials, processing and automation.

[K1]

CO3: categorise the sources of information and library materials. [K2]

CO4: explain about e-resources, plagiarism and basic steps in technical processing. [K2]

CO5: setup a small automated library using ICT and steps in organizing library material [K3]

#### UNIT I

##### Content Documentary sources, Reference Sources

Primary sources of information - periodicals, newspapers, technical reports, conference papers – Secondary sources- secondary periodicals, bibliographies, books - Tertiary sources of information - Reference sources/book - Dictionary - Encyclopedia- Yearbook-Almanac-Handbook-Manual-Directory (8 Hours)

#### UNIT II

##### Electronic Sources and Introduction to Plagiarism

e-Resources – Advantages of e-resources – Limitations of e-resources – categories of e-resources- electronic journals - electronic books - electronic databases - electronic reports – electronic theses and dissertations – Institutional repositories- Plagiarism - Anti-Plagiarism tools. (5 Hours)

### **UNIT III**

#### **Organisation of library material: concept, need and purpose**

Library material - Print material - books, periodicals, newspapers, Non print material audio - visual materials, electronic materials/ resources, other material - Need to organize Library material - Purpose of organizing library material - Steps in organizing library material (6 Hours)

### **UNIT IV**

#### **Processing of library material: classification and cataloging**

Technical processing – Need for technical processing- Basic steps in technical processing-Libraryclassification-Purposeoflibraryclassification-Callnumber, schemes of library classification -Library catalogue -Uses of library cataloguing-OPAC, Web OPAC (6 Hours)

### **UNIT V**

#### **Setting up a small modern library using ICT:**

Introduction to MS-EXCEL - Creating Accession Register -Creating Circulation Register - Searching and Retrieving the information from the created registers (5 Hours)

#### **Study material compiled from online e-resources**

**UNIT I** <https://nios-ac.in/media/documents/SrSecLibrary/LCh-006.pdf> <https://nios-ac.in/media/documents/SrSecLibrary/LCh-007.pdf>[http://library.fgcu.edu/RSD/Instruction/handouts/handout-primary\\_secondary.pdf](http://library.fgcu.edu/RSD/Instruction/handouts/handout-primary_secondary.pdf)[http://epgp.inflibnet.ac.in/epgpdata/uploads/epgp\\_content/library\\_and\\_information\\_science/information\\_sources,\\_systems\\_and\\_services/04.\\_reference\\_sourcesuseand\\_evaluation\\_criteria,e-information\\_sources/et/1916\\_et\\_et.pdf](http://epgp.inflibnet.ac.in/epgpdata/uploads/epgp_content/library_and_information_science/information_sources,_systems_and_services/04._reference_sourcesuseand_evaluation_criteria,e-information_sources/et/1916_et_et.pdf)

**UNIT II** <https://nios-ac.in/media/documents/SrSecLibrary/LCh-008.pdf>

[https://www.researchgate.net/publication/268508509\\_Types\\_of\\_E-Resources\\_and\\_its\\_utilities\\_in\\_Library](https://www.researchgate.net/publication/268508509_Types_of_E-Resources_and_its_utilities_in_Library) <http://www.e-journals.org/>

Turnitin.tutorial:<http://www.hunter.cuny.edu/studentaffairs/repository/files/What%20is%20Plagiarism.pdf>

<https://ir.inflibnet.ac.in/bitstream/1944/1081/1/64.pdf>

<https://arxiv.org/ftp/arxiv/papers/1801/1801.06323.pdf>



**UNIT III** <https://nios-ac.in/media/documents/SrSecLibrary/LCh-009.pdf>

[http://lili.org/forlibs/ce/sable/course4/sec4-classification-](http://lili.org/forlibs/ce/sable/course4/sec4-classification-11.htm)

[11.htm](http://www.britannica.com/topic/library/Library-materials)<https://www.britannica.com/topic/library/Library-materials>

**UNIT IV:** [https://nios-ac.in/media/documents/SrSecLibrary/LCh-](https://nios-ac.in/media/documents/SrSecLibrary/LCh-010.pdf)

[010.pdf](http://egyankosh.ac.in/bitstream/123456789/34903/1/Unit-6.pdf)<http://egyankosh.ac.in/bitstream/123456789/34903/1/Unit-6.pdf>

[https://libwebspaces.library.cmu.edu/libraries-and-collections/Cataloging/processing.](https://libwebspaces.library.cmu.edu/libraries-and-collections/Cataloging/processing.html)

html

**UNIT V**

[https://www.mta.ca/uploadedFiles/Community/Administrative\\_departments/Human\\_Resources/Training\\_and\\_professional\\_development/Classroom/Excel%20Training%20-%20Level%201.pdf](https://www.mta.ca/uploadedFiles/Community/Administrative_departments/Human_Resources/Training_and_professional_development/Classroom/Excel%20Training%20-%20Level%201.pdf)

[https://web.itu.edu.tr/~tasking/Gulsen\\_Taskins\\_homepage/bil101e\\_files/excelAll.pdf](https://web.itu.edu.tr/~tasking/Gulsen_Taskins_homepage/bil101e_files/excelAll.pdf)

<http://cms.gcg11.ac.in/attachments/article/281/MS-EXCEL.pdf>

<http://www.cogniview.com/blog/catalog-your-books-and-manage-your-library-with-excel/>

<https://exceldatapro.com/school-library-register/>

## REFERENCE BOOKS

1. Tripathi, (S M), Modern Cataloguing: Theory and Practice, Agra: Shiva Lal Agarwala and Co., 1982.
2. KrishanKumar, Theory of Classification, New Delhi: Vikas Publishing House Pvt. Ltd, 1981.
3. Suseela Kumar, The Changing Concepts of Reference Service, Delhi: Vikas Publishing House Pvt. Ltd, 1974
4. Ranganathan, (S R), Reference Service, Bombay: Asia Publishing House, 1961

## REFERENCE WEBSITES

### UNIT I:

[http://shodhganga.inflibnet.ac.in/bitstream/10603/40587/9/11\\_chapter2.pdf](http://shodhganga.inflibnet.ac.in/bitstream/10603/40587/9/11_chapter2.pdf)<https://www.juhsd.net/cms/lib010/CA01902464/Centricity/Domain/138/Sources.pdf>

<https://www.juhsd.net/cms/lib010/CA01902464/Centricity/Domain/138/Sources.pdf>

<https://www.oclc.org/content/dam/oclc/reports/2010perceptions/collegestudents.pdf>[http://karibouconnections.net/medlibafrica/training\\_module/pdf/module1.pdf](http://karibouconnections.net/medlibafrica/training_module/pdf/module1.pdf)<http://egyankosh.ac.in/bitstream/123456789/33149/1/Unit-10,11.pdf>

[http://karibouconnections.net/medlibafrica/training\\_module/pdf/module1.pdf](http://karibouconnections.net/medlibafrica/training_module/pdf/module1.pdf)<http://egyankosh.ac.in/bitstream/123456789/33149/1/Unit-10,11.pdf>

<http://egyankosh.ac.in/bitstream/123456789/33149/1/Unit-10,11.pdf>

**UNIT II:** [http://shodhganga.inflibnet.ac.in/bitstream/10603/26627/13/13\\_chapter%204.pdf](http://shodhganga.inflibnet.ac.in/bitstream/10603/26627/13/13_chapter%204.pdf)  
[http://jlisnet.com/journals/jlis/Vol\\_1\\_No\\_1\\_December\\_2013/10.pdf](http://jlisnet.com/journals/jlis/Vol_1_No_1_December_2013/10.pdf)[http://www.ala.org/alcts/sites/ala.org.alcts/files/content/resources/papers/ir\\_ch05\\_.pdf](http://www.ala.org/alcts/sites/ala.org.alcts/files/content/resources/papers/ir_ch05_.pdf)[https://www.researchgate.net/publication/263743965\\_Plagiarism\\_in\\_research](https://www.researchgate.net/publication/263743965_Plagiarism_in_research)[https://www.researchgate.net/publication/300485038\\_Anti-plagiarism\\_Software\\_Usage\\_Effectiveness\\_and\\_Issues](https://www.researchgate.net/publication/300485038_Anti-plagiarism_Software_Usage_Effectiveness_and_Issues)

**UNIT III:**

[http://shodhganga.inflibnet.ac.in/bitstream/10603/175048/11/09\\_chapter%202.pdf](http://shodhganga.inflibnet.ac.in/bitstream/10603/175048/11/09_chapter%202.pdf)<http://irepos.unijos.edu.ng/jspui/bitstream/123456789/1189/1/Importance0001%20%2811%20files%20merged%29.pdf>  
<https://www.ifla.org/files/assets/pac/ipi/pchlm.pdf>[http://europepmc.org/backend/ptp\\_mcrender.fcgi?accid=PMC198745&blobtype=pdf](http://europepmc.org/backend/ptp_mcrender.fcgi?accid=PMC198745&blobtype=pdf)

**UNIT IV:**

[http://shodhganga.inflibnet.ac.in/bitstream/10603/31769/10/10\\_chapter%203.pdf](http://shodhganga.inflibnet.ac.in/bitstream/10603/31769/10/10_chapter%203.pdf)[http://164.100.133.129:81/econtent/Uploads/Library\\_Classification\\_theory.pdf](http://164.100.133.129:81/econtent/Uploads/Library_Classification_theory.pdf)[https://www.researchgate.net/publication/220028641\\_Library\\_Classification\\_Systems\\_and\\_Organization\\_of\\_Islamic\\_Knowledge\\_Current\\_Global\\_Scenario\\_and\\_Optimal\\_Solution](https://www.researchgate.net/publication/220028641_Library_Classification_Systems_and_Organization_of_Islamic_Knowledge_Current_Global_Scenario_and_Optimal_Solution)  
<https://www.britannica.com/topic/library/Cataloging>  
<https://libguides.ala.org/catalogingtools>  
<https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=2337&context=libphilpra>  
[http://www.aijcrnet.com/journals/Vol\\_2\\_No\\_6\\_June\\_2012/15.pdf](http://www.aijcrnet.com/journals/Vol_2_No_6_June_2012/15.pdf)

**UNIT V:**

<http://www.pitt.edu/~edindex/OfficeXPTutorials/Lesson4XP.pdf>  
<https://web.iitd.ac.in/~nkurur/2010-11/Isem/cyp501/ExcelIntro.pdf>  
<https://ralbeifalrefal.wixsite.com/touchsseabvari/post/library-accession-register-format-in-excel>  
<https://www.centrocentro.org/sites/default/files/2020-07/library-accession-register-for-mat-in-excel.pdf>

| Course Code<br>20ULSN41 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | H   | M   | -   | -   | M   | -   | L   |
| CO2                     | H   | M   | -   | -   | M   | -   | -   |
| CO3                     | H   | M   | -   | -   | -   | -   | L   |
| CO4                     | H   | M   | -   | -   | M   | -   | L   |
| CO5                     | H   | M   | M   | -   | H   | -   | -   |

Dr.P.Clara Jeyaseeli  
Head of the Department

Dr.P.Clara Jeyaseeli  
Course Designer



## V.V.VANNIAPERUMAL COLLEGE FOR WOMEN

(Belonging to Virudhunagar Hindu Nadars)

An Autonomous Institution Affiliated to Madurai Kamaraj University, Madurai

Re-accredited with 'A' Grade (3<sup>rd</sup> Cycle) by NAAC

**VIRUDHUNAGAR - 626 001**

### NON MAJOR ELECTIVE COURSE

(2023-2024 onwards)

|                         |   |                |                |
|-------------------------|---|----------------|----------------|
| Semester III            | <b>Cadet Corps for Career Development I</b> | Hours/Week: 2  |                |
| Non-Major Elective -1   |   | Credits: 2     |                |
| Course Code<br>22UNCN31 |   | Internal<br>40 | External<br>60 |

### COURSE OUTCOMES

On completion of the course, the students will be able to

CO1: define military history, war strategies, weapon handling of small arms and

ecological concepts [K1]

CO2: identify various wars, maps, weapons, interview techniques, energy and pollution [K2]

CO3: Illustrate the background of wars prescribed, the defence selection process and

requirements and various types of pollution. [K2]

CO4: Identify the cause and consequence of threats to public welfare and techniques to crack

exams. [K3]

CO5: Apply the strategies used in post independence wars, in weapon handling, in pollution

management and interview skills in real life situation. [K3]

### UNIT I Military History

Indo- Pakistan War-1965, 1971 and 1999-Kargil Operation

Defence Ranks and Badges

### UNIT II Map Reading

Types of Maps, Conventional Signs and Grid references, Prismatic Compass, Types of North, Finding Own Position

**UNIT III Infantry Weapons and Equipment**

Rifle, SLR, LMG, Loading and Unloading of Rifles, Principles of Firing

**UNIT IV Ecology**

Pollution and its types, Energy Conservation and Non-Conventional Energy Sources

**UNIT V Service Selection Board**

Introduction to SSB interview process

**ASSIGNMENT**

Map reading- Demonstrating grid references

**TEXT BOOKS**

NCC HAND BOOK( Prescribed by DG NCC)

**REFERENCE**[https://gcsanjauli.edu.in/files/ncc/prc\\_5.pdf](https://gcsanjauli.edu.in/files/ncc/prc_5.pdf)<https://indiancc.nic.in/>

| Course Code | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------|-----|-----|-----|-----|-----|-----|-----|
| CO1         | H   | M   | M   | M   | L   | H   | H   |
| CO2         | H   | M   | M   | M   | L   | H   | H   |
| CO3         | H   | M   | M   | M   | L   | H   | H   |
| CO4         | H   | M   | M   | H   | L   | H   | H   |
| CO5         | H   | H   | H   | H   | L   | H   | H   |

Lt.E.Kalpana  
Head of the Department

Lt.E.Kalpana  
Course Designers



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VIRUDHUNAGAR - 626 001

### NON MAJOR ELECTIVE COURSE (2023-2024 onwards)

|                         |  |               |          |
|-------------------------|--|---------------|----------|
| Semester III            | <b>Cadet Corps for Career Development II</b> | Hours/Week: 2 |          |
| Non-Major Elective -2   |  | Credits: 2    |          |
| Course Code<br>22UNCN41 |  | Internal      | External |
|                         |  | 40            | 60       |

### COURSE OUTCOMES

On completion of the course, the students will be able to

CO1: describe the 1962 Indo-China war, eminent military personalities, ways and means of first aid. [K1]

CO2: explain the role of war heroes, field signals, solution for emergencies and necessity of national integration.[K2]

CO3: discuss the war practices, first aid measures and the necessity of national integration. [K2]

CO4: solve emergency situation regionally, personally and socially. [K3]

CO5: Apply the practical knowledge gained to real life situation. [K3]

### UNIT I Military History

Indo- China war 1962

Biography- General Cariappa, F.M.Sam Manekshaw, Sub.Bana Singh

Gallantry Awards and Medals

### UNIT II Field Craft

Types of Covers, Concealment, Camouflage, Judging Distance

**UNIT III Battle Craft**

Field Signals, Section Formation

**UNIT IV First Aid**

Definition of First Aid, Types of Bandages, First Aid for Haemorrhage, Fracture, Burn and Scalds, snake bite, dog bite.

**UNIT V National Integration**

Main Hindrance of National Integration, Aims of National Integration Camp

**ASSIGNMENT**

Any First Aid Demonstration of CPR- 10 marks

**TEXT BOOKS**

Natrajan,N.K.SSB Interview.Mumbai:Jaico Publishing House,2021.print

NCC HAND BOOK( Prescribed by DG NCC)

**REFERENCE**

[https://gcsanjauli.edu.in/files/ncc/prc\\_5.pdf](https://gcsanjauli.edu.in/files/ncc/prc_5.pdf)

<https://indiancc.nic.in/>

| Course Code | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------|-----|-----|-----|-----|-----|-----|-----|
| CO1         | H   | M   | M   | M   | L   | H   | M   |
| CO2         | H   | M   | M   | H   | L   | H   | M   |
| CO3         | H   | M   | M   | M   | L   | H   | M   |
| CO4         | H   | M   | M   | H   | L   | H   | H   |
| CO5         | H   | M   | H   | H   | L   | H   | M   |

Lt.E.Kalpana  
Head of the Department

Lt.E.Kalpana  
Course Designers



## வே.வ.வன்னியப்பெருமாள் பெண்கள் கல்லூரி

(விருதுநகர் இந்து நாடார்களுக்குப் பாத்தியப்பட்டது)  
 மதுரை காமராசர் பல்கலைக்கழகத்தின் கீழ் தன்னாட்சி உரிமம் பெற்றது  
 (தேசிய தரமதிப்பீட்டுக் குழுவின் மறுமதிப்பீட்டில் (முன்றாம் சுற்று) 'A' அந்தஸ்து பெற்றது)  
 விருதுநகர் - 626001

இளங்கலைத்தமிழ்

(2020 – 2021 ஆம் ஆண்டு முதல் சேரும் மாணவர்களுக்கூரியது)

|                                  |                                   |                    |                     |
|----------------------------------|-----------------------------------|--------------------|---------------------|
| மூன்றாம் பருவம்                  | அடிப்படைத் தமிழ் -<br>எழுத்தறிதல் | நேரம் / வாரம் : 2  |                     |
| Non Major Elective<br>Course - I |                                   | தர மதிப்பு : 2     |                     |
| பாடக் குறியீட்டு எண்<br>20UBTN31 |                                   | அக மதிப்பெண்<br>40 | புற மதிப்பெண்<br>60 |

### கற்றல் வெளிப்பாடு

இந்தப் பாடத்திட்டம் முடிந்த பிறகு, மாணவர்கள்

CO1:மொழியின் இன்றியமையாமையையும் பயன்களையும் வெளிப்படுத்துவர். [K1]

CO2 :தமிழ் எழுத்துக்களை எடுத்துரைப்பர். [K1]

CO3 :தமிழ் எழுத்துக்களின் வகைகளைக் கூறுவர். [K2]

CO4 :தமிழ்எழுத்துக்களின் ஒலி வேறுபாடுகளைச் சுட்டுவர். [K2]

CO5 :ஒரெழுத்து,ஈரெழுத்து, பல எழுத்துக்களைப் பொருளுடன் பிரித்தறிவர்.[K3]

### கூறு 1

தமிழ் எழுத்துக்களை அறிமுகம் செய்தல், உயிர் எழுத்துக்கள், மெய் எழுத்துக்கள்  
(6 மணிநேரம்)

### கூறு 2

குறில், நெடில் எழுத்துக்கள், வல்லினம், மெல்லினம், இடையினம், எழுத்தொலி அளவு  
(மாத்திரை)  
(6 மணிநேரம்)

### கூறு 3

உயிர் மெய் எழுத்துக்களின் வரிவடிவம்.  
(6 மணிநேரம்)

### கூறு 4

சார்பெழுத்துகள் - குறுகி ஒலித்தல் - நீண்டு ஒலித்தல்  
(6 மணிநேரம்)



## கூறு 5

சொல்லமைவு, ஓரெழுத்து,ஈரெழுத்து, இரண்டிற்கு மேற்பட்ட எழுத்தமைவுச் சொற்கள்.

(6 மணிநேரம்)

| Course Code<br>20UBTN31 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | H   | H   | L   | H   | -   | -   | H   |
| CO2                     | H   | M   | M   | H   | L   | -   | H   |
| CO3                     | H   | M   | L   | M   | -   | -   | H   |
| CO4                     | H   | H   | -   | -   | -   | -   | H   |
| CO5                     | H   | H   | L   | L   | M   | -   | H   |

Dr.T.Velmayil  
Head of the Department

Dr.J.Nalinadevi  
Course Designer



**வே.வ.வன்னியப்பெருமாள் பெண்கள் கல்லூரி**  
 (விருதுநகர் இந்து நாடார்களுக்குப் பாத்தியப்பட்டது)  
 மதுரை காமராசர் பல்கலைக்கழகத்தின் கீழ் தன்னாட்சி உரிமம் பெற்றது  
 (தேசிய தரமதிப்பீட்டுக் குழுவின் மறுமதிப்பீட்டில் (முன்றாம் சுற்று) 'A' அந்தஸ்து பெற்றது)  
**விருதுநகர் - 626001**

இளங்கலைத்தமிழ்  
 (2020 – 21 ஆம் ஆண்டு முதல் சேரும் மாணவர்களுக்குரியது)

|   |   |                    |                     |
|---|---|--------------------|---------------------|
| நான்காம் பருவம்                         | <b>அடிப்படைத் தமிழ் -<br/>மொழித்திறனறிதல்</b> | நேரம் / வாரம் : 2  |                     |
| NMEC - 2                                |   | தர மதிப்பு : 2     |                     |
| பாடக் குறியீட்டு எண்<br><b>20UBTN41</b> |   | அக மதிப்பெண்<br>40 | புற மதிப்பெண்<br>60 |

**கற்றல் வெளிப்பாடு**

இந்தப் பாடத்திட்டம் முடிந்த பிறகு மாணவர்கள்

CO1:தமிழ் எழுத்துக்களை வகைப்படுத்துவர். [K1]

CO2:தமிழ்ச்சொற்களை எடுத்துரைப்பர். [K1]

CO3: எழுத்து, சொல், வாக்கிய வடிவங்களின் இலக்கண மரபுகளை அறிந்து வெளிப்படுத்துவர். [K2]

CO4:எழுத்து, சொல், வாக்கிய அமைப்புக்களைச் சான்றுகளுடன் விளக்குவர். [K2]

CO5:தமிழ் எழுத்துக்களையும், சொற்களையும், வாக்கியங்களையும் பிரித்தறிவர். [K3]

**கூறு 1**

பெயர்ச்சொல் - விளக்கம் - வகைகள்- தன்மை, முன்னிலை,படர்க்கைப்பெயர்கள் - சுட்டு, வினா - சான்றுகள் - பத்தியிலிருந்து பெயர்ச் சொற்களைக்கண்டறியப் பயிற்சி அளித்தல்.

(6 மணி நேரம்)

**கூறு 2**

பால் - ஐந்து வகைகள் - சான்றுகள் - எண் - ஒருமை, பன்மை - சான்றுகள் - வேற்றுமை உருபுகள் - வேற்றுமை உருபுகளைச் சரியான இடத்தில் பயன்படுத்தப் பயிற்சி அளித்தல்.

(6 மணி நேரம்)

**கூறு 3**

வினைச் சொற்கள் - விளக்கம் - வகைகள் - எச்சம் - சான்றுகள்-பிழையான வாக்கியங்களைக் கண்டறிதல் (வழு)

(6 மணி நேரம்)

**கூறு 4**

மொழிமுதல் எழுத்துக்கள் - விளக்கம் -சான்றுகள்- மொழிமுதலில் வரா  
எழுத்துக்கள் - மொழி இறுதி எழுத்துக்கள்- சான்றுகள், (6 மணி நேரம்)

**கூறு 5**

வாக்கிய அமைப்பு - எழுவாய் , பயனிலை,செயப்படுபொருள் - சான்றுகள் காட்டி  
விளக்குதல். (6 மணி நேரம்)

| Course Code<br>20UBTN41 | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|
| CO1                     | H   | H   | L   | H   | -   | -   | H   |
| CO2                     | H   | M   | M   | H   | L   | -   | H   |
| CO3                     | H   | M   | L   | M   | -   | -   | H   |
| CO4                     | H   | H   | -   | -   | -   | -   | H   |
| CO5                     | H   | H   | L   | L   | M   | -   | H   |

Dr.T.Velmayil  
Head of the Department

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Course Designer