



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

Value

Added Course -Syllabus  
Departmental Course

Course Code: 22VTAD01	இயற்கை மருத்துவமும் உணவுமுறையும்	Duration : 30 Hours
		Internal : 50

கூறு: 1

1. மருத்துவ வரலாறு
2. இயற்கை மருத்துவம் - தோற்றமும் வளர்ச்சியும்
3. இயற்கை மருத்துவம்
4. உடல் அறிவியல்
5. தமிழர் மருத்துவம்
6. உணவு
7. அன்னைக்கான உணவு
8. முதியோருக்கான உணவு
9. குழந்தைக்கான உணவு

கூறு : 2

1. மழைக்கால உணவு
2. பனிக்கால உணவு
3. கல்விதரும் உணவு
4. வயதைக் குறைக்கும் உணவு
5. இரும்புச் சத்துஉணவு
6. கால்சியம் உணவு
7. அழகாய் இருக்கஉதவும் உணவு

கூறு : 3

1. சிறுதானியங்கள் தான் இனி எதிர்காலம்
2. உணவே மருந்து!
3. உணவுப் பழக்கம்

## பாடநூல்கள்

1. சித்தமருத்துவம் (தொகுதி- 1 : வரலாறு) தமிழ் வளர்ச்சிக்கழக வெளியீடு, சென்னை- 05, முதற்பதிப்பு 2003.
2. மருந்தில்லா மருத்துவம் - கே.ஆர்.வேலாயுதராஜா, பாப்புலர் பப்ளிகேசன்ஸ், சென்னை- 94. முதற் பதிப்பு 2015.
3. இயற்கை உணவே நோய் தீர்க்கும் மருந்து - மூ.ஆ.அப்பன், இந்து பப்ளிகேசன்ஸ், சென்னை- 35,பதினைந்தாம் பதிப்பு 2014.2017.
4. வியக்கவைக்கும் தமிழர் அறிவியல் - மாத்தளை சோமு, உதகம் (உலகத் தமிழாய்வுக் கழகம்),உறையூர், சென்னை -03,முதற்பதிப்பு -2005
5. மருந்தெனவேண்டாவாம் - கு.சிவராமன், விகடன் பிரசுரம், சென்னை- 02, இரண்டாம் பதிப்பு -2017.
6. நோய்களைத் துரத்தும் பாரம்பரிய உணவுகள் வாழ்வியல் மருத்துவம் (பகுதி 5), மாறன்.பு., தாய்வழிப் பதிப்பகம், சிவகாசி -123.

## பார்வை நூல்கள்

1. உயிர்மெய் . மருத்துவர் கு.சிவராமன், விகடன் பிரசுரம், சென்னை- 02, இரண்டாம் பதிப்பு -2017.
2. ஏழாம் சுவை - மருத்துவர் கு.சிவராமன், விகடன் பிரசுரம், சென்னை- 02, ஏழாம் பதிப்பு - 2015.







**வே.வ.வன்னியப்பெருமாள் பெண்கள் கல்லூரி**  
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விருதுநகர் - 626001

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பாடக்குறியீடு 22UVTAD03	□□□□ □□□□□□ □□□□□□ □□□□□□	நேரம்: 30 மணி அகமதிப்பெண்: 100
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**கற்றல் வெளிப்பாடு**

**பாடத் திட்டம் நிறைவுற்ற நிலையில் மாணவர்கள்**

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- CO3 : □□□□□□□□ □□□□□ □□□□□□ □□□□□ □□□□ □□□ □□□□□□□□□□, □□□□□□□□□□,  
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**\$W : 3**

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பெரிய செய்தி, -பெரிய செய்தி பெரிய செய்தி பெரிய செய்தி பெரிய செய்தி பெரிய செய்தி-  
பெரிய செய்தி பெரிய செய்தி-பெரிய செய்தி. (10 மீட்டர் நேரம்)

பெரிய செய்தி

1. பெரிய செய்தி. பெரிய செய்தி. பெரிய செய்தி, பெரிய செய்தி பெரிய செய்தி பெரிய செய்தி பெரிய செய்தி பெரிய செய்தி பெரிய செய்தி, பெரிய செய்தி-14

பெரிய செய்தி பெரிய செய்தி

1. பெரிய செய்தி பெரிய செய்தி பெரிய செய்தி, பெரிய செய்தி பெரிய செய்தி பெரிய செய்தி பெரிய செய்தி, பெரிய செய்தி பெரிய செய்தி, பெரிய செய்தி-18
2. பெரிய செய்தி. பெரிய செய்தி, பெரிய செய்தி. பெரிய செய்தி பெரிய செய்தி, (2009). பெரிய செய்தி பெரிய செய்தி பெரிய செய்தி, பெரிய செய்தி பெரிய செய்தி பெரிய செய்தி பெரிய செய்தி பெரிய செய்தி.

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# 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.A. English  
(2020 -21 onwards)**

<b>Semester V</b>	<b>English Vocabulary and Usage</b>	<b>Hours/Week: 2</b>
<b>Value Added Course - Departmental</b>		<b>Credits: 2</b>
<b>Course Code 20VEND01</b>		<b>Internal 50</b>

## Course Outcomes

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

- explain the proper usage of English vocabulary and write creatively with their enriched English vocabulary.
- translate simple words, titles of works and films, proverbs and short poems applying the rules of translation.
- apply idioms, litotes, euphemisms, paired words, apt words, and onomatopoeic words appropriately in writing and speaking.
- examine and appreciate the beauty of the English language .
- evaluate their ability to speak, recite poems and narrate stories in English.

## Unit I- Vocabulary

Crossword puzzles (30 squares) - Paired words - Apt words- Riddles - Idioms with Body Parts and Animals – Euphemisms - Onomatopoeic Words

## Unit II -Writing Skills

Writing Captions for Photos/Pictures-Litotes-Palindromes-Jokes in Dialogue form - Translating the Titles of the Published Works- Cinema Titles- Proverbs- Short Poems

## Unit III -Speaking Skills

Picture Description - Tongue Twisters - Reciting a Short Poem (max:20 lines)- Extempore - Telling Stories with Gestures- Mono-acting

## Reference Book

*English for Empowerment.* (2019). Board of Editors. Department of English.

Dr.G. Athirshtakumari

Dr.R.Malathy

**Heads of the Departments**

Dr.G. Athirshtakumari

Dr.T.Ganga Parameswari

Dr.B.Winmayil

**Course Designers**



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**VIRUDHUNAGAR - 626 001**

**Department of English**

**UG Departmental Value Added Course**

**(2022 - 2023 onwards)**

<b>Course Code:</b> <b>22UVEND02</b>	<b>Indian Epics and Values</b>	<b>Total Hours: 30</b>
		<b>Internal: 100 Marks</b>

## **COURSE OUTCOMES**

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

- CO1 : understand the basic themes and plots of great Indian epics
- CO2 : imbibe the intellectual, moral, and spiritual aspects of life represented by the characters in the prescribed works
- CO3 : develop ethics like humility, truthfulness, discipline and self reliance
- CO4 : apply the acquired knowledge in various real life situations.
- CO5 : interpret and relate the imbibed ideals to their life.

### **Unit I:**

#### **The Ramayana**

Rama's Initiation

Two Promises Revived

Vali

Rama and Ravana in Battle

The Coronation

(10 Hours)

### **Unit II: The Mahabharatha**

Stakes Unmatched

Hundred Questions

Servitude

War or Peace?

Action

(10 Hours)

### **Unit III: Gods, Demons and Humans**

Yayati

Devi



Valmiki

Nala

Sibi

(10 Hours)

**Text Book:**

1. Narayan, R. K. (2000). *The Indian Epics Retold*. Gurgaon: Penguin Random House India Pvt. Ltd.



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## B.A. History

### VALUE ADDED COURSE – DEPARTMENTAL

(2020 – 21 onwards)

Code:	<b>EPIGRAPHY</b>	Total Hours: 30
19VHID01	<b>(For those who joined in 2018-2019 and after)</b>	Internal Marks: 50

#### Course Outcomes:

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

CO1: know the meaning of Epigraphy and its kinds.

CO2: equip themselves in the art of writing the ancient script.

CO3: analyse the historical values of inscriptions through the ages.

CO4: gain wide knowledge on selected inscriptions and copper plates.

CO5: learn the importance of Epigraphy in pursuing research.

#### UNIT I

Epigraphy – Meaning –Forms and contents of inscriptions – Prasasti, Meikirti  
Kinds of inscriptions – Memorial stones – Copper plates - Eras – Kali era – Saka era – Kollam era –  
Vikrama era – Hijri era. (10 hours)

#### UNIT II

Evolution of scripts: Cave paintings - Pictogram – Ideogram – Logogram – phonetic –  
script in Tamil Nadu: Tamil Brahmi – Vatteluthu – Grantha. (10 hours)

#### UNIT III

Inscriptions through the ages: First Pandyas, Pallavas, Cholas, Second  
Pandyas, Vijayanagar - Sample study: Pulimankombai inscription - Mangulam inscription -  
Uttaramerur inscriptions –Tiruparankundram inscription – Tiruengomalai inscription -  
Velvikkudi copper plates. (10 hours)

FIELD STUDY: A study on the method of estampaging inscription.

## TEXT BOOK

## REFERENCE BOOKS

1. Satyamurthy,K. (1992). *Text Book of Indian Epigraphy*, Delhi: Low Price Publications.
2. Sircar,D.C. (1965). *Indian Epigraphy*, Delhi: MotilalBanarsidass.
3. Venkataraman,R.(1980).*Tamil Epigraphy – A Survey*, Madurai: EnnesPublications, Madurai, 1980.
4. Krishnan,A. (2002).*Tamil Civilization in Epigraphy*,New Delhi: BharatiyaKalaPrakasan.
5. Venkataraman,R. (1985).*Indian Archaeology (A Survey)*, Udumalpet: EnnesPublications.

Dr.M.Geetha.

**Head of the department.**

Mrs.M.Maheswari

**Course Designer**



**வே.வ.வன்னியப்பெருமாள் பெண்கள் கல்லூரி**  
(விருதுநகர் இந்து நாடார்களுக்குப் பாத்தியப்பட்டது)  
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(தேசிய தரமதிப்பீட்டுக் குழுவின் மறுமதிப்பீட்டில் (முன்றாம் சுற்ற) 'A' அந்தஸ்து பெற்றது)  
விருதுநகர் - 626001

**இளங்கலை வரலாறு**  
(2020 -21ஆம்ஆண்டுமுதல்சேரும்மாணவியர்களுக்குரியது)

பருவம்-V		நேரம்: 30மணி
பாடக்குறியீடு 19VHID01	<b>கல்வெட்டியல்</b>	அகமதிப்பெண்: 50

**கற்றல் வெளிப்பாடு**

**பாடத் திட்டம் நிறைவுற்ற நிலையில் மாணவர்கள்**

- CO1: கல்வெட்டுகளின் பொருள் மற்றும் அதன் வகைகள்பற்றி அறியும் திறன் பெற்றிருப்பர்.
- CO2: பண்டைய எழுத்துக்களை எழுதும் கலையில் தங்களை தயார்படுத்திக்கொள்ளும் புலமை பெற்றிருப்பர்.
- CO3: காலம்தோறும் உள்ள கல்வெட்டுகளின் வரலாற்று மதிப்புகளைபகுப்பாய்வு செய்யும் ஆற்றல் பெற்றிருப்பர்.
- CO4: தேர்ந்தெடுக்கப்பட்ட கல்வெட்டுகள் மற்றும் செப்புத் தகடுகளில் உள்ள கருத்துக்களை அடையாளம்காணும் அறிவைப்பெற்றிருப்பர்.
- CO5: ஆராய்ச்சியைத் தொடர்வதில் கல்வெட்டின் முக்கியத்துவத்தை அறிந்து கொள்ளும் திறன் பெற்றிருப்பர்.

**அலகு I**

கல்வெட்டு - பொருள் - கல்வெட்டுகளின் அமைப்பு மற்றும் உள்ளடக்கங்கள் - பிரசஸ்தி, மெய்க்கீர்த்தி - கல்வெட்டுகளின் வகைகள் - நினைவுக் கற்கள் - செப்புத் தகடுகள் - சகாப்தம் - கலி ஆண்டு - சகா ஆண்டு - கொல்லம் ஆண்டு - விக்ரம ஆண்டு - ஹிஜ்ரி ஆண்டு. (10 மணிநேரம்)

**அலகு II**

எழுத்துக்களின் பரிணாமம்: குகை ஓவியங்கள் - சித்திர எழுத்துகள் - கருத்தெழுத்து - படகுறியீட்டு எழுத்து - ஒலிப்பு குறியீட்டு எழுத்து - தமிழ்நாட்டில் எழுத்துகள் : தமிழ் பிராமி - வட்டெழுத்து - கிரந்த எழுத்து. (10 மணி நேரம்)

**அலகு III**

கல்வெட்டுகள்: முதலாம்பாண்டியர்கள், பல்லவர்கள், சோழர்கள், இரண்டாம் பாண்டியர்கள், விஜயநகர் - மாதிரி ஆய்வு: புலிமான்கோம்பை கல்வெட்டு - மாங்குளம் கல்வெட்டு - உத்தரமேரூர் கல்வெட்டுகள் - திருப்பரங்குன்றம் கல்வெட்டு -- திருஎங்கோய்மலை கல்வெட்டு - வேள்விக்குடி செப்பேடுகள். (10 மணிநேரம்)

கள ஆய்வு: கல்வெட்டு படிஎடுக்கும்முறை பற்றிய ஒரு ஆய்வு.

### உரைபுத்தகம்

வெங்கட்ராமன், ஆர். (1980). *தமிழ் கல்வெட்டு – ஒர் ஆய்வு*, மதுரை: என்னஸ் பப்ளிகேஷன்ஸ்.

### குறிப்பு புத்தகங்கள்

1. சத்தியமூர்த்தி, கே. (1992) *இந்திய கல்வெட்டுகளின் உரை புத்தகம்*, டெல்லி: குறைந்த விலைவெளியீடுகள்.
2. சர்க்கார், டி.சி. (1965). *இந்திய கல்வெட்டு*, டெல்லி: மோதிலால் பனார்சிதாஸ்.
3. வெங்கட்ராமன், ஆர். (1985) *இந்திய தொல்லியல் (ஒர் ஆய்வு)*, உடுமலைபேட்டை: என்னஸ் பப்ளிகேஷன்ஸ்.

முனைவர்.மா.கீதா  
மகேஸ்வரி

திருமதி மு.

### துறைத்தலைவர்

பாடத்திட்டவடிவமைப்பாளர்



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### Department of History

### UG Departmental Value Added Course

(2022 - 2023 onwards)

<b>Course Code:</b> <b>22UVHID02</b>	<b>Arts and Crafts of Primitive Tribes of Tamilnadu</b>	<b>Total Hours: 30</b>
		<b>Internal: 100 Marks</b>

### COURSE OUTCOMES

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

- CO1 : summarise the meaning of Primitive Tribe.
- CO2 : identify the history of primitive Tribes of Tamilnadu
- CO3 : outline the importance of arts of primitive Tribes of Tamilnadu.
- CO4 : acquire knowledge on the significance of crafts of Tamilnadu Primitive Tribes
- CO5 : develop research skill in the area of study.

### Unit I

Primitive Tribes: Meaning - Definition – primitive Tribes of Tamilnadu– Toda - Kota - Kurumba Irular -Paniyan – Kattunayakan. (10 Hours)

### Unit II

Art of Primitive tribe of Tamilnadu– Folk dance of Toda - Music of Kota– Music of Irular – Canvas paintings of Kurumba – Paniyar Kali the dance of Paniyan – Koonattam the dance of Kattunayakan. (10 Hours)

### **Unit III**

Craft of Primitive tribes of Tamilnadu –Toda Embroidery–Kota Carpentry and Pottery– Hand embroidery of Irular - Bamboo basket making and jewellery making of paniyan.

(10 Hours)

#### **Text Book:**

1. Study material prepared by faculty of Physics Department

#### **Reference Books**

1. Balaji.G (2007), *Tribes of Nilgris-Art and Crafts of the Kotas,Kurumbas,Irulas & Paniyas*,Chennai:The CP Ramaswamy Iyer Foundation.
2. Thurston Edgar,(2020), *Castes and Tribes of Southern India*, Vol.I of 7, (Classics to go) OTB e-book Publishing.







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## VALUE ADDED COURSE - DEPARTMENTAL COURSE

ODD SEMESTER

Course Code: <b>20VMTD01</b>	<b>QUICKER MATH</b>	Duration: 30 hours
		Internal: 50

### COURSE OUTCOMES

On completion of this course the learners will be able to

CO1: acquire the knowledge on various techniques of quantitative aptitude.

CO2: enhance their analytical ability and computational skills.

CO3: explain different methods and techniques in solving problems on numbers, ratio and proportion, time and distance, percentage, simple interest, compound interest, average, time and work, time and distance.

CO4: apply their skills in solving problems with more confident.

CO5: solve the problems easily by using Short-cut method with time management.

### UNIT I

Multiplication of Numbers – Shortcut Methods - Fractions and Decimals – Finding Square and Cube – Shortcut Methods - Finding Square root and Cube root . (10 Hours)

### UNIT II

Ratio and Proportion I – Ratio and Proportion II - Profit and Loss - Percentage I – Percentage II. (10 Hours)

### UNIT III

Average - Simple Interest - Compound Interest - Time and Work - Time and Distance (10 Hours)

### TEXT BOOKS

1. Ashish Aggarwal, Quick Arithmetic, S.Chand, First Edition 2004
2. R.S.Aggarwal, Objective Arithmetic, S.Chand and company Ltd, Reprint 2004.



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Department of Mathematics (SF)

Departmental Value Added Course – Easy MATH using Sutras

Subject Code: 22VMTD02

Duration: 30 hours

### COURSE OUTCOMES

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

CO1: define complex Mathematical problems faster and easier. [K1]

CO2: explain the concepts of Mathematics with clarity. [K2]

CO3: discuss the problems using short cut methods. [K2]

CO4: apply analytical thinking in problem solving. [K3]

CO5: find solutions faster to various problems. [K3]

#### Unit I :

Addition and Subtraction - Shudh Method – Number splitting Method- Digit sums and Multiplication– Nine check Method – Eleven check method- Vinculum –Multiplication by 11 (10 hours)

#### Unit II :

Squaring and Square Root - Division-Algebraic Squaring -Special methods of division-Split method. (10 hours)

#### Unit III :

Cube and Cube Root, Decimals, Factorization- Highest Common Factor, Simple Equations, Quadratic Equations. (10 hours)

#### PRESCRIBED BOOK:

1. Fundamentals and Applications of Vedic Mathematics 2014, State council of Educational Research & Training, New Delhi.
2. Pandit Ramnandan Shashtri, *For Competitive Exams Vedic Mathematics MADE EASY*, Arihant Publications(I)Pvt. Ltd, Meerut.



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## Department of Mathematics

### UG Departmental Value Added Course

(2022-2023 onwards)

<b>Course Code</b> 22UVMTD03	<b>Construction of Mathematical Models</b>	<b>No. of Hours : 30</b>
		<b>Internal : 100 Marks</b>

### COURSE OUTCOME

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

- CO1 : identify assumptions which are consistent with the context of the problem
- CO2 : acquire knowledge in Construction of Mathematical models.
- CO3 : explain basic concepts in Mathematics using the models.
- CO4 : solve problems by demonstrating the value of Mathematics through models
- CO5 : relate mathematical concepts with models

### Unit I

What is model- use of models-Materials for Models. Paper folding-Curve Stitching-

Knots (10 Hours)

### Unit II

Polyhedra- Coloring polyhedral-Archimedean polyhedra-Stellated Archimedean

Polyhedra.Models in solid geometry (10 Hours)

### Unit III

Hyperboloid-Wire models- Mechanical Models-Roller paradox-Friction Paradox

(10 Hours)

### Text Book:

1. H Martyn Cundy -AP Rollett-mathematical Models-oxford Clarendon Press 1961.



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**Department of Mathematics (SF)**

**UG Departmental Value Added Course**

**(2022 - 2023 onwards)**

<b>Course Code:</b> <b>22UVMTD04</b>	<b>Verbal Reasoning</b>	<b>Total Hours: 30</b>
		<b>Internal: 100 Marks</b>

### **COURSE OUTCOMES**

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

- CO1 : identify the problems in real life situations and solve them logically
- CO2 : explain the aptitude problems, reasoning skills to enhance their career in Government and Corporate sector
- CO3 : understand the computational skills on problem solving
- CO4 : solve the problems in competitive examinations confidently
- CO5 : apply systematically the data in coding and decoding direction sense test and system

### **UNIT I**

Series Completions, Coding and Decoding. (10 Hours)

### **UNIT II**

Blood Relations, Direction Sense Test. (10 Hours)

### **UNIT III**

Arithmetical Reasoning (10 Hours)

### **TEXT BOOK**

1. Agarwal, R. S.(2016). A Modern Approach to Verbal and Non-Verbal Reasoning, New Delhi:S.Chand&Company Pvt. Ltd.



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## VALUE ADDED COURSE - DEPARTMENTAL COURSE ODD SEMESTER

VAC	<b>Drawing Electrical &amp; Electronic Circuits using Softwares</b>	Total Hours: 30
Course Code- <b>21VPHD01</b>		Internal - 50

### COURSE OUTCOME

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

CO 1: understand the tools and techniques to draw electrical & electronic circuits using softwares [K2]

CO2: apply the learned concepts to draw the circuit diagram using softwares [K3]

CO 3: to draw the graphs using Ex-Cel [K3]

### UNIT I

#### Introduction

Inkscape: Object creation - Object manipulation with transformation (moving, rotating, scaling and skewing) - Scalable Vector Graphics (SVG)-circuitverse software-input-output-gates-decoders & plexers- Sequential elements – Annotation - Misc- Edraw tools-Basic electrical symbols- Semiconductor devices-switches and relays. (4 hours)

#### General Physics Practical Circuits

Voltmeter calibration using potentiometer – Resistance of the coil using Carey Foster bridge – Voltage and current sensitivity using spot galvanometer – Self inductance of the coil using Anderson bridge – Measurement of capacitance using Desauty's Bridge - Series resonance circuit. (6 hours)

### UNIT II

#### Analog Electronics Practical Circuits

Zener diode: Reverse bias & characteristics – Transistor characteristics - Hartley oscillator – Single stage amplifier – Low pass & high pass filters using discrete components – Adder & subtractor using IC 741 – Schmitt's trigger - Power supply. (10 hours)

## **UNIT III**

### **Digital Electronics Practical Circuits**

RS Flip-flop – Astable multivibrator using IC 555 - Inverting and non-inverting amplifiers – Binary to GRAY and GRAY to Binary converter - 2 to 4 decoder - Decade counter. (6 hours)

### **Plotting Graphs using Microsoft Excel**

Voltmeter calibration - Newton's law of cooling - Zener diode characteristics – Transistor characteristics - Series resonance circuit – i-d curve. (4 hours)

### **References**

1. <https://en.wikipedia.org/wiki/Inkscape>
2. [WWW.circuitverse.org](http://WWW.circuitverse.org)





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Department of Physics (Aided)

UG Departmental Value Added Course

(2022 - 2023 onwards)

<b>Course Code:</b> <b>22UVPHD02</b>	<b>Basics of Arduino Programming</b>	<b>Total Hours: 30</b>
		<b>Internal: 100 Marks</b>

## COURSE OUTCOMES

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

CO1 : understand the principles of sensors and actuators

CO2 : understand the principles of sensors and actuators

CO3 : familiarize coding techniques in Arduino IDE

### Unit I

Sensors: LDR – Thermistors – Ultrasonic sensor Actuators: LED, Motor

(10 Hours)

### Unit II

Introduction – Arduino – Arduino UNO - Arduino UNO layout diagram - Pin diagram

-

Arduino driver installation procedure – Arduino IDE tool bar - Selecting a processor or controller for an application

(10 Hours)

### Unit III

Programmes using Arduino board: Turning ON/OFF an LED – To blink tricolour LED - Controlling LED ON/OFF through LDR – Turning ON/OFF a motor – Controlling fan based on thermistor Input – To sense temperature range

(10

Hours)

### Text Book:

1. E-resources and study material prepared by faculty of Physics Department.

### Reference Books:

1. Arduino Projects Engineers (2020) – Neerparaj Rai, BPB Publications

### Reference e-Links:

1. <https://www.tutorialspoint.com/arduino/index.htm>

2. <https://microcontrollerslab.com/arduino-programming-tutorial-beginners>



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## DEPARTMENT OF CHEMISTRY

Value Added Course	<b>Introduction to Forensic Science</b>	Total hours : 30
Course Code <b>19VCHD01</b>		Internal : 50

### COURSE OUTCOMES:

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

CO 1: describe the principle and functions of forensic science and its  
significance to human society

CO 2: Gain knowledge on various techniques of analysis

CO 3: acquire a wide knowledge on crime scene investigation

### UNIT I

#### INTRODUCTION AND SCENE OF OCCURRENCE WITH PHYSICAL EVIDENCE

Definition – history – facilities offered by various divisions of forensic laboratory - expert – relevancy of expert opinion – value of expert evidence. Locard's principle of Exchange – preservation and recording of crime scene - search of evidence. Physical evidence – definition - sources and types of physical evidence – control sample - handling, packaging, labelling, sealing, forwarding of physical evidence, Chain of evidence – special instruction for special types of exhibits.

### UNIT II

#### FORENSIC METHODS OF ANALYSIS- ALCOHOL, NARCOTICS AND POISONS AND WHITE COLLAR CRIMES

Simple organic analysis – chromatographic techniques – microscopy (comparison stereoscopic, polarizing and scanning electron microscopy – x-ray diffraction – spectrophotometer. Alcohol and their effects on the body, collection of samples – drunken driving – determination of alcohol – Drug addiction – identification of drug addict – characteristics of drugs ( Depressants, stimulants, Hallucinogens) –

Toxicology - classification of poison – action of poison on body.

Characteristic of white collar crimes – classification and forensic investigation of white collar crimes – Cyber crimes – mode and manner of committing cyber crime.

### **UNIT III**

#### **Practicals**

1. Revealing Latent Fingerprints using Iodine fuming
2. Revealing Latent Fingerprints using Ninhydrin
3. Forensic drug testing- Analysis of drugs by Chromatography
4. Assay vitamin C in urine by Iodometric titration
5. Forensic Toxicology – Detection of alkaloid poison using Dragendorff's reagent

#### **BASIC REFERENCE:**

- 1) Nabar B S, Forensic Science, SVP national police academy, Hyderabad.

#### **Other reading materials:**

- 2) Eckert G. William – Introduction to Forensic Sciences, CRC Press, Second Edition
- 3) Nanda and Tewari – Forensic Science in India A Vision for the 21<sup>st</sup> Century, SelectPublisher, 2001.
- 4) Saferstein Richard, Criminalistics – An Introduction to forensic science, Prentice Hall, Fifth Edition



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**Department of Chemistry (Aided)**  
**UG Departmental Value Added Course**  
**(2022 - 2023 onwards)**

<b>Course Code:</b> <b>22UVCHD02</b>	<b>Perfume Chemistry</b>	<b>Total Hours: 30</b>
		<b>Internal: 100 Marks</b>

**COURSE OUTCOME**

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

- CO1 : undertake the functional groups present in the perfumes
- CO2 : gain knowledge about the preparation, properties and uses of some commercial perfumes such as Jasmine, lily and artificial flowers
- CO3 : be familiarize with the components of some fruit flavors such as banana, grape and apple

**UNIT I**

Introduction- Esters, alcohols, ketones, ionones, Nitromusks- Aldehydes- Diphenyl compounds (9 Hours)

**UNIT II**

Preparation, properties and uses of natural perfumes (from rose, lily, orange blossom, jasmine and fruit flowers) (9 Hours)

**UNIT III**

Components of fruit flavours (apple, pine apple, banana and grape) (9 Hours)

**PRACTICAL**

Extraction of Jasmine Perfume (Demonstration only) (3 Hours)

**Text Book :**

1. B. K. Sharma, (2000) Industrial Chemistry (including Chemical Engineering), GOEL Publishing House, II Edition, Meerut.

**Reference Books:**

1. B. N. Chakrabarty (1981) Industrial Chemistry, I Edition, Oxford and IBH Publishing Co. Pvt.Ltd., Calcutta.
2. Thankamma Jacob, (1997) A textbook of applied chemistry for home science and allied sciences, II Edition, Delhi Macmillan India Limited



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## B.Sc. ZOOLOGY

(2018 -2019 onwards)

Semester	<b>ORNAMENTAL FISH CULTURE</b>	Hours/Week:	
Value Added Course - Departmental		Credits:	
Course Code <b>19VZYD01</b>		Internal	External

### COURSE OUTCOME

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

- understand the commercial value of ornamental fish farming and trade.
- realize our country's contribution to the international export market.
- create awareness about fish farming techniques.

### UNIT I

Introduction and Significance of ornamental fish farming. Identification of popular ornamental fishes -Siamese fighter fish, Gold fish, Angel fish and Black molly.

### UNIT II

Construction of fish tank and Accessories.

Transport of fishes: Oxygen packing

### UNIT III

Breeding methods - Siamese fighting fish and Gold fish.

Diseases and treatment of ornamental fishes - White spot disease and Vertical scale disease,

### TEXT BOOK

1. Arumugam, N. (2009). *Aquaculture*. Nagercoil: Saras Publication.

### REFERENCE BOOKS

1. Jhingran, V.G. (1983). *Fish and Fisheries of India*. New Delhi: Hindustan Publishing Corp.

2. Pandey and Shukla (2005). *Fish and Fisheries*. Meerut: Rastogi Publications.
3. Pauly, D. and Zeller, D. (2017) *Comments on FAOs State of World Fisheries and Aquaculture* (SOFIA 2016) Marine Policy (Vol.77). 176-181

**WEBSITE REFERENCES:-**

1. <http://www.fao.org/fishery/aquaculture/en>
2. <https://www.sciencedirect.com/science/article/pii/S0308597X16305516>

Dr. M. Tamilselvi  
Course Designer



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**Department of Zoology**

**UG Departmental Value Added Course**

**(2022 - 2023 onwards)**

<b>Course Code:</b> <b>22UVZYD02</b>	<b>Dairy Farming</b>	<b>Total Hours: 30</b>
		<b>Internal: 100 Marks</b>

## **COURSE OUTCOMES**

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

- CO1 : learn the fundamentals and rearing methods of cow.
- CO2 : acquire the basic knowledge about the management of dairy farm.
- CO3 : apply their knowledge and skills to set a dairy farm and to promote self-employment opportunities among folklore.

### **Unit I**

Introduction - scope of dairy farm – Livestock in India – Dairy of animals: Cattle and Buffalo –nutritive value of milk – Milk products: Butter and ghee (10 Hours)

### **Unit II**

Management of dairy farm: Dairy house – Management of cow – Management milk cow –Breeding Management – Pasteurization: Methods – advantages of pasteurization (10 Hours)

### **Unit III**

Dairy diseases – Pathogen, Mode of transmission, Symptoms and control measures of Mastitis and Rinder pest – (*Cattle plague-Bovine typhus*) (10 Hours)

### **Text Book:**

Study material prepared by Faculty Members of Department of Zoology.



**Reference Books:**

1. N Arumugam T Murugan (Author), R Ram Prabhu J Johnson Rajeshwar (2015). Applied Zoology. Saras publication.
2. Dairy Science: Petersen (W.E.) Publisher – Lippincott & Company
3. Outlines of Dairy Technology – Sukumar (De) – Oxford University press 3. Indian Dairy Products – Rangappa (K.S.) & Acharya (KT) – Asia Publishing House.
4. The technology of milk Processing – Ananthkrishnan, C.P., Khan, A.Q. and Padmanabhan, P.N. – Shri Lakshmi Publications.
5. Dairy India 2007, Sixth edititon 6. Economics of Milk Production – Bharati Pratima Acharya Publishers.



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VIRUDHUNAGAR - 626 001

## DEPARTMENTAL VALUE ADDED COURSE

### WEALTH FROM WASTE -19VHSD01

#### Course outcomes

On completion of the course, students will be able to

- acquire knowledge and skills in making wealth out of waste.
- develop aesthetic sense in preparation of art objects.
- develop entrepreneurial skills and provide avenues for self – employment.

#### UNIT I

Door mat – materials required and procedure.

#### UNIT II

Wall hangings – materials required and its procedure. Jewellery box – materials required and its procedure.

#### UNIT III

Lamp holders – materials required and procedure. Eco friendly bags – materials required and procedure.

#### References:

Rodney Firedman. (1975). *The Family Creative Workshop*, Plenary publications, Newyork.

<https://www.youtube.com/watch?v=Y1oP3S6zboQ> – door mat

<https://www.youtube.com/watch?v=7oCG4YTp3UU> – wall hangings

<https://www.youtube.com/watch?v=UWep5r6y9aQ> – Jewellery box

<https://www.youtube.com/watch?v=YgjXXmNwWuY> – lamp holder

<https://www.youtube.com/watch?v=1btGx9yMgpk> – eco-friendly bag



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VIRUDHUNAGAR - 626 001

33  
17<sup>th</sup> Academic Council Meeting 31.01.2023

Department of Home Science - Nutrition and Dietetics

UG Departmental Value Added Course

(2022 - 2023 onwards)

<b>Course Code:</b> <b>22UVHSD02</b>	<b>Convenience Food</b>	<b>Total Hours: 30</b>
		<b>Internal: 100 Marks</b>

**COURSE OUTCOMES**

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

- CO1 : understand the knowledge and basic methodology for standardizing a new food product
- CO2 : acquire skills in processing of different types of convenience foods
- CO3 : develop self-employment opportunities in food processing industries

**Unit I**

**Product Development:** New food product - definition, classification, need, factors affecting new food product development, packaging and nutritional labeling. Standardization of a new food product. (10

Hours)

**Unit II**

Convenience food – definition, history, needs, types, advantages and limitations.

(10 Hours)

**Unit III**

Ready to use foods - preparation of masalas - garam masala, chat masala, puliotharai mix, idly chili powder, rasam powder, sambar powder and kulambu masala. - instant adadosa and millet based venpongal mixes- weaning food mixes

Ready to eat foods - fried legumes

(10 Hours)

**Text Book:**

1. Study Material prepared by the faculty members from the Department of Zoology

**Reference Books**

1. Chopra, S. et al., (2001). *Basic Food Preparation*, New Delhi: Orient Longman Limited Publication.
2. Sontakki, C.N.(2010). *Marketing*, New Delhi: Kalyani Publishers.



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**VIRUDHUNAGAR - 626 001**

**Department of Biochemistry**

**UG Departmental Value Added Course**

**(2022 -2023 onwards)**

<b>Course Code</b> <b>22UVBCD01</b>	<b>Organic Farming</b>	<b>No. of Hours : 30</b>
		<b>Internal : 100 Marks</b>

## **Course Outcomes**

, The students will be able to

- CO1 : recall the role of soil health in organic crop production and marketing of organic crop products.
- CO2 : extend the basic cultural practices and biological processes critical for successful organic farming
- CO3 : identify challenges and trends in the production, processing and marketing of organic farm products .

## **UNIT I**

Overview of Organic Agriculture Principles and cultural practices Soil health as the basis for organic farming- Origin, history, and philosophy of organic agriculture- History of science in relation to organic agriculture- Recent trends in the organic market place. Composting organic procedures- Soil food web- Nutrient cycles- Crop rotations- Cover crops .  
(9 Hours)

## **UNIT II**

Pest Management and Organic Livestock, Animal health practices , Future Trends in Organic Agriculture-Traditional diets (raw milk, fermented foods, pasture fed meat, milk, eggs).Building consumer-farmer relationships.  
(9 Hours)

## **UNIT III**

Field work- Growing of organic vegetables and greens in V.V.Vanniaperumal college for Women campus.  
(12 Hours)

### **Text Books**

1. Organic Transition-An On-line Course from Rodale Institue.  
<http://www.tritraingcenter.org/course/>.
2. Maliwal,PL,2019. Principles of Organic Farming. Scientific Publishers,India.
3. Study Material prepared by the Faculty of Biochemistry.

### **Reference Books**

1. Francis, C, ed. 2009. Organic Farming: The Ecological system .ASA, CSSA, SSSA, Agronomy Monograph 54. Madison, WI
2. Heckman, JR, 2006. A. History of Organic Farming: Available on web: <http://www.westonaprice.org/farm-a-ranch/468-history-of-organic-farming.html>



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VIRUDHUNAGAR - 626 001

Department

of Biochemistry

UG Departmental Value Added Course

(2022 -2023 onwards)

<b>Course Code</b> 22UVBCD02	<b>Therapeutic Nutrition</b>	<b>No. of Hours : 30</b>
		<b>Internal : 100 Marks</b>

## Course Outcomes

, the students will be able to

- CO1 : to acquire basic knowledge of nutrient requirements and dietary modification under different ailments and different physiological conditions
- CO2 : to gain knowledge on the nature and scope of therapeutic nutrition; and understand the principles of dietary modification and apply in planning.
- CO3 : to modify the diet plans to suit the disease condition

## UNIT I

Definition of normal diet and therapeutic diet. Importance of therapeutic meal planning and factors to be considered in meal planning. Types of Diet; Soft diet, liquid diet, fiber diet. Dietary management in acute and chronic fevers; Typhoid and Viral fevers. Dietary management during obesity. (10 Hours)

## UNIT II

Cardiovascular diseases-Dietary management in atherosclerosis and hypertension, cerebrovascular stroke & congestive heart failure. Diet during diabetes mellitus and gout. Dietary management for a sports person. Diet for anemic conditions. Diet during jaundice. (10 Hours)

## UNIT III

Renal disorders – dietary management in acute and chronic renal failure, renal calculi; dialysis. Respiratory disorders – Dietary management during acute and chronic respiratory disorders. Diet for Gastrointestinal disorders: Diarrhea, constipation Peptic ulcers.

**Text Books**

1. Sheel Sharma. (2006). Human Nutrition and Meal Planning. (pp 414-419). New Delhi, Jnanada Prakasham (P&D).
2. Gopalan, C., Ramsastri, B.V .and Balasubramanian, S.C( .2012 .)Nutritive value of Indian foods.
3. ICMR( .2010 .)Recommended Dietary Allowances for Indians, ICMR, Delhi.
4. Joshi, S( .2000 .)Nutrition and dietetics .Tata McGraw-Hill Publishing Co .Ltd., New Delhi.

**Reference Books**

1. William S.R Nutrition and Diet Therapy, 1985, 5th edition, MoslyCo.St.Louis.
2. Corinne H .Robinson, Marilyn R .Lawler, Wanda L .Chenoweth, Ann E .Garwick( 1982) Normal and Therapeutic Nutrition( pp -1-16 .)New York, Macmillan Publishing Company.
3. Elia, M., Ljungqvist, O., Stratton, R. and Susan, L. (Eds ( .).2012 .)Clinical Nutrition, 2<sup>nd</sup> Edition.Wiley-Blackwell



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### SYLLABUS

#### B.Sc. MICROBIOLOGY

SEMESTER V

DURATION: 30 Hours

#### DEPARTMENTAL VALUE ADDED COURSE

#### BIOFERTILIZER PRODUCTION

#### 19VMBD01

(For Final year Microbiology students admitted in 2018-2019 and after)

#### COURSE OUTCOMES

##### The students will be able to

- ❖ Impart knowledge about the usefulness of Biofertilizer.
- ❖ Know the importance of ecofriendliness for our future.
- ❖ Illustrate the applications of biofertilizers are free from pollution hazards and also increase soil fertility.
- ❖ Understand the economical and environmental impacts of Biofertilizers.

##### Unit – I

Biofertilizer – Introduction, Scope and applications of Biofertilizers. *Azospirillum* – Isolation, Screening and Characterization from soil. Mass cultivation and carrier based inoculants. (8 Hours)

##### Unit – II

Phosphate solubilizing bacteria – *Pseudomonas* – Isolation, Screening and Characterization from soil. Mass cultivation and carrier based inoculants. Collection of Rhizosphere soil – Preparation of Nitrogen free malate medium and Pikovskaya medium – Mass production of *Azospirillum* and *Pseudomonas*. (10 Hours)



### **Unit – III**

Preparation of carrier (Rice husk ash) – Mixing of *Azospirillum* and *Pseudomonas* with carrier – Packing of carrier based inoculums. (10 Hours)

#### **Extension activity**

Pot Experiment - Distribution of Biofertilizers to the nearby Villages – Retrieving Feedback from the farmers. (2 Hours)

#### **Text book**

1.Dubey R.C., 2007. Text book of Microbiology. S.Chand & Company Ltd.,New Delhi.

**M.M.Fatima Mansoor**  
**Course Designer**



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**VIRUDHUNAGAR - 626 001**

## Department of Microbiology

### UG Departmental Value Added Course

(2022 - 2023 onwards)

<b>Course Code:</b> <b>22UVMBD02</b>	<b>Microbial Protein Production</b>	<b>Total Hours: 30</b>
		<b>Internal: 100 Marks</b>

### COURSE OUTCOMES

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

- CO1 : gain knowledge about the usefulness of Microbial protein.
- CO2 : know the role of microbes in welfare of human kind.
- CO3 : understand the biotechnological applications of Algae and Fungi.
- CO4 : acquire knowledge on the marketing potential of the Microbial protein production.
- CO5 : elucidate the economic importance of Microbial protein.

### Unit – I

Microbial protein- Introduction- Sources of microbes and the selection criteria, Substrates suitable for SCP production. Nutritional aspects of Single Cell Protein  
(10 Hours)

### Unit – II

Production of algal protein-Factors affecting Biomass Production- Mass cultivation and Harvesting Technology of Chlorella & Spirulina- Advantages of Spirulina.  
(10 Hours)

### Unit – III

Production of Bacterial and Actinomycetous protein- Factors affecting biomass production and Product Recovery. Production of Yeast Biomass and Mycoprotein. Nutritional Value of Food protein.  
(10 Hours)

### Text book

Dubey R.C., 2006. Text book of Biotechnology. S.Chand& Company Ltd., New Delhi.



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## B.Sc. BIOTECHNOLOGY

(2018 -19 onwards)

Semester V	<b>VERMICULTURE BIOTECHNOLOGY</b>	Hours: 30
Value Added Course 1 (Departmental level)		Internal 50
Course Code <b>19VBOD01</b>		

### Course outcomes

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

- ❖ Familiar with the techniques of vermicomposting
- ❖ Cultivation methods of earthworms and waste reduction technology
- ❖ Learn and practice this low cost technology

### Unit I

Vermicomposting- Scope and importance, Ecological classification: Humus feeders, leaf mold, top soil and sub soil types. Raw materials for vermicomposting. - Methods of vermicomposting – Pit method, Heap method, Windrow method, Bin or tray method. mechanism of vermicomposting.

### Unit II

Monoculture and polyculture, Selection of species for vermicomposting Optimal conditions for vermiculture – temperature, moisture, pH, soil type, organic matter, protection from sunlight, rain, predators – food preference, Harvesting, Precautions for storage, packing. Characterization of vermicompost.

### Unit III

Recycling of wastes through vermicomposting – Vermi wash preparation and applications. Advantages and applications of vermicomposting. cost – Benefit analysis of vermicomposting.

## Reference Books

1. Edwards, C.A and Bohlen P.J, 1996. Ecology of earthwarms. 3<sup>rd</sup> Edition. Chapman and hall.
2. Ismail, S.A., 1970, Vermicology. The biology of earthwarms. Orient Longman, London.
3. Lee, K.E., 1985, Earthwarms – Their ecology and relationships with soil and land use, Academic Press, Sydney.
4. Seethalekshmy, N and R. Santhi, 2012, Vermitechnology, Saras publications.



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**VIRUDHUNAGAR - 626 001**

**Department of Biotechnology**  
**UG Departmental Value Added Course**  
**(2022 - 2023 onwards)**

<b>Course Code:</b> <b>22UVBOD02</b>	<b>Bio entrepreneurship</b>	<b>Total Hours: 30</b>
		<b>Internal: 100 Marks</b>

**COURSE OUTCOMES**

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

- CO1 : understand the significance of self-employment
- CO2 : know the scope for life science industry
- CO3 : apply the theoretical knowledge to solve practical problems
- CO4 : identify the demand of the industry and create job opportunity
- CO5 : analyze the financial assistance and marketing strategy in this competitive world

**UNIT-I**

Scope for biotechnology industry, Biotechnological products - Biofertilisers- Azospirillum, Rhizobium, Azolla, Biopesticides- NPV, Trichoderma, SCP-Spirulina, Bioprocess industry, Herbal products (10 Hours)

**UNIT -II**

Marketing management- Definition and Importance, Marketing-mix, product management –Product line, Product mix, marketing Research and Importance of survey, Physical Distribution and Stock Management. (10 Hours)

**Unit-III**

Bioentrepreneurship :Introduction, Needs and Importance of Entrepreneurship, Promotion of entrepreneurship, Qualities of a biotech entrepreneur, Raising capital – Financial Assistance by Government sectors- DST, DSIR, DBT, MSME, NSIC, special schemes to women entrepreneur - TREAD, Bank loans - The Small Industries Development Bank of India (SIDBI) – Mahila Udyam Nidhi, Mahila Vikas Nidhi, Venture capitalists (VC) and Private equity (PE)

(10 Hours)

### **Textbook**

1. Dubey R C, A Textbook of Biotechnology, S. Chand and Company Limited, New Delhi, 2014

### **Reference Books**

1. Hine D., Kapeleris J, Innovation and Entrepreneurship in Biotechnology, an International perspective-Concepts, theories & cases, USA, Edward Elgar publishing Ltd, 2006.
2. Moussalli C and the staff of vault, Vault career guide to biotech, New Delhi, New Age International Publishers, 2006.
3. Philip Kotler, Marketing Management, New Delhi, Prentice Hall India, 2004.
4. Pisano G.P, Science Business: The Promise, the Reality, and the Future of Biotech, Boston, Harvard Business School Press, 2006.



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VIRUDHUNAGAR - 626 001

### B.Sc. Costume Design and Fashion Departmental Value Added Course (2020 -21 onwards) ART AND CRAFT – 19VCFD01

**Total hours: 30**

#### COURSE OUTCOMES

On completion of the course, students will be able to

- attain different ideas to generate various innovative products.
- develop the imagination and memory to create different objects using paper.
- acquire knowledge and skills to create different painting ideas.

#### UNIT – I

Jute products – tray, wall décor and bottle holder with its procedure and cost calculations.

#### UNIT - II

Paper crafts – wall hanging, lamp shade and paper flower bouquet with its procedure and cost calculations.

#### UNIT - III

Paintings – wall hanging, pot painting and glass painting with its procedure and cost calculations.

#### REFERENCES:

1. Barbara Pearce, (1983). *Flower arranging*, London: Deans International Publishing.
2. <https://www.livemaster.com/topic/3170345-making-basket-of-jute-cardboard-with-your-own-hands> - jute products.
3. <https://in.pinterest.com/bymargie/diy-paper-lampshade/> - lamp shades.
4. <https://homesthetics.net/20-extraordinary-smart-diy-paper-wall-decor-free-template-included/> - wall hanging.
5. <https://www.hgtv.com/design/make-and-celebrate/handmade/how-to-make-paper-flowers-for-a-wedding-bouquet> - paper flower bouquet.
6. <https://www.wikihow.life/Paint-New-Terracotta-Pots> - pot painting.
7. <https://www.wikihow.com/Do-Simple-Glass-Painting> - glass painting.





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VIRUDHUNAGAR - 626 001

Department

of Costume Design and Fashion

UG Departmental Value Added Course

(2022 - 2023 onwards)

<b>Course Code:</b> <b>22UVCFD02</b>	<b>Upcycling Fabric Scrap</b>	<b>Total Hours: 30</b>
		<b>Internal: 100 Marks</b>

## COURSE OUTCOMES

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

CO1 : up cycle the fabric scrap into innovative products

CO2 : develop upcycled, sustainable products

CO3 : inculcate entrepreneurial skills

### UNIT - I

Organizer, Garment and Key Chain with its procedure and cost calculations. (10 Hours)

### UNIT - II

Bag, Quilt and Flowers with its procedure and cost calculations. (10 Hours)

### UNIT - III

Pouch, Book Mark and Doll with its procedure and cost calculations. (10 Hours)

### Text Book

1. Study Material prepared by the faculty members from the Costume Design and Fashion

### REFERENCE e-Links

- <https://youtu.be/PzTXmelgPlk>
- [https://youtu.be/7B5p\\_HaB1K8](https://youtu.be/7B5p_HaB1K8)
- <https://youtu.be/4a6OwUPAYRg>
- [https://youtu.be/C6JDpDX\\_k3Q](https://youtu.be/C6JDpDX_k3Q)
- <https://youtu.be/6mDUp8QDxH4>
- <https://youtu.be/L3S7fwpwWyU>
- <https://youtu.be/IHckXZI75VI>

- <https://youtu.be/151plnTgkDY>

- <https://youtu.be/Rz2uwTo2E0I>



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**VIRUDHUNAGAR - 626 001**

**DEPARTMENT OF COMPUTER SCIENCE (AIDED)**

**VALUE ADDED COURSE**

**SYLLABUS**

Course Code : 20VCSD01	<b>Excel in Excel</b>	Contact Hours: 30Hrs
		Internal - 50

### Unit I

**Overview of Workbooks:** - Creating Workbooks -Saving Workbooks -Closing Workbooks - Opening Workbooks.

**Editing Worksheets:-** Entering Data -Entering Text -Entering Numbers Entering Dates and Times -Editing Data -Replacing Data -Deleting Data -Moving and Copying Cells - Using Paste Special- Clearing Cells -Undoing and Redoing Changes .

**Formatting Worksheets:** - Formatting Cells and Cell Contents - Changing the Font and Font Size - Changing the Font Color and Fill Color - Applying Font Styles - Adding Cell Borders - Formatting Numbers -Positioning Cell Contents - Aligning Data - Indenting Data - Rotating Data

- Wrapping Data - Merging Cells- Copying Cell Formatting - Applying Cell Styles.

**Working with Rows and Columns:** - Inserting Rows and Columns - Deleting Rows and Columns -Changing Row Heights -Changing Column Widths - Hiding and Un-hiding Rows and Columns.

**Working with Worksheets:** -Selecting Worksheets - Navigating Between Worksheets - Renaming Worksheets - Inserting Worksheets - Deleting Worksheets - Moving Worksheets - Copying Worksheets

**Working with Comments:** -Adding Comments -Editing Comments – Deleting Comments- Displaying and Hiding Comments **(10 hrs.)**

### Unit II

**Working with Views:** Switching Views - Changing the Zoom Level - Freezing Panes - Splitting the Workbook Window -Viewing Multiple Workbooks.

**Changing the Page Layout:** Changing the Page Margins - Changing the Page

Orientation - Setting a Print Area - Adjusting Page Breaks - Scaling Worksheets - Printing Gridlines.

**Previewing and Print Worksheets.**

**(10 hrs.)**

### **Unit III**

**Working with Charts:** Creating Charts - Selecting Chart Elements - Changing the Chart Type - Changing the Chart Data - Changing the Chart Layout - Formatting Charts - Moving Charts - Deleting Charts.

#### **Using Formulas and Functions- Using Formulas and Functions:**

Using Operators in Formulas - Using Cell References in Formulas - Entering Formulas - Displaying Formulas - Using Functions in Formulas - Using the AutoSum Button - Inserting Functions - Using Formula AutoComplete

**Password-protecting Workbooks.**

**(10 hrs.)**



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VIRUDHUNAGAR - 626 001

### SYLLABUS

Value Added Course	<b>DIGITAL ART DESIGN</b>	Total Hours: 30
Course Code: 20VCSD02		Internal - 50

### COURSE OUTCOMES

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

- CO1** – edit images with various tools.
- CO2** – apply different effects to showcase the beauty of an image.
- CO3** – create logo, invitation card, banner, poster, broucher and youTube thumbnail.

### UNIT I

Image editing – Background Removal – Photo collage – Designing Birthday card – Designing Wedding Invitation – Designing Online Webinar Invitation – Designing Evite – Designing a Brand Promo. (9 Hours)

### UNIT II

Video Making – Designing Logo – Designing Business Card – Poster Making – Banner Making – Sale Flier Making – Brouchure Making (11 Hours)

### UNIT III

Creating e-Book Cover – Creating YouTube Thumbnail – Creating Instaquote – Creating Facbook Page Cover – Creating attractive social media post. (10 Hours)

### TEXT BOOK

Study material prepared by Faculty Members of Departments of Computer Science  
(Self Finance)



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**VIRUDHUNAGAR - 626 001**

**Department of Computer Science (Aided)**

**UG Departmental Value Added Course**

**(2022 - 2023 onwards)**

<b>Course Code:</b> <b>22UVCSD03</b>	<b>Document Preparation and Presentation</b>	<b>Total Hours: 30</b>
		<b>Internal: 100 Marks</b>

**COURSE OUTCOMES**

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

- CO1 - recognize the features of Microsoft Office Word 2010 and Microsoft Office PowerPoint 2010.
- CO2 - manage emails, calendars, presentations and tasks.
- CO3 - apply formatting on elements of Word and PowerPoint.

**UNIT I**

**Introduction to Microsoft Word 2010:** Starting Microsoft Word 2010 – Exploring the User Interface of Microsoft 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 Microsoft 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.

(10 Hours)

## UNIT II

**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, Envelopes, 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. (12 Hours)

## UNIT III

**Introduction to Microsoft PowerPoint:** Introduction to presentation – Opening new presentation, Different presentation templates, Setting backgrounds, Selecting presentation layouts - Creating a presentation - Setting Presentation style, Adding text to the Presentation - Formatting a Presentation - Adding style, Color, gradient fills, Arranging objects, Adding Header & Footer, Slide Background, Slide layout- Adding Graphics to the Presentation- Inserting pictures, movies, tables etc. into presentation, Drawing Pictures using Draw - Adding Effects to the Presentation- Setting Animation & transition effect-Printing Handouts - Generating Standalone Presentation viewer. (8 Hours)

## TEXT BOOK

1. Study Material prepared by Faculty of Computer Science.



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### DEPARTMENT OF INFORMATION TECHNOLOGY

#### DEPARTMENTAL COURSE

Value Added Course	<b>GRAPHIC DESIGNING</b>	Total Hours: 30
Course Code: 19VITD01		Internal - 50

#### COURSE OUTCOMES

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

- to create logos, brochures and dialogues.
- to create the advertisements and graphic designing with efficient skills.
- to understand the various shapes of drawing tools.

#### UNIT I

**CorelDraw Basics:** Getting started with CorelDraw – Creating a new File – The CorelDraw Screen – Property bar – Drawing basic geometric figures – Drawing Polygon – Saving a File – Closing a File – Opening and Exiting CorelDraw Views – The View Managers.

#### UNIT II

1. To design a House using shapes with pattern fill.
2. Designing a Greeting Card using Text formatting.
3. Designing a Visiting Card using image with text.
4. Designing image using Interactive Tools.
5. Designing the Text by adding Special Effects.

6. Designing Logo for any organization.

### **UNIT III**

1. Create a CorelDraw file to Fit Text in Path.
2. To design CorelDraw file for text manipulation.
3. To design CorelDraw file for object manipulation.
4. Drawing a Graph using Graph Paper Tool.
5. Designing a Book Cover.
6. Designing a Fish Tank

### **REFERENCE BOOK**

Vikas Gupta, Comdex Desktop Publishing Course Kit, Dream Tech Publisher,  
2007. Unit I : Page No: 217 – 247





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**VIRUDHUNAGAR - 626 001**

Department of

Information

Technology

UG Departmental Value Added Course

(2022 - 2023 onwards)

<b>Course Code:</b> 22UVITD02	<b>Advanced Office Automation Tools and Technology</b>	<b>Total Hours: 30</b>
		<b>Internal: 100 Marks</b>

## COURSE OUTCOMES

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

- CO1 : Understand the basis of Microsoft Office Word and Excel.
- CO2 : Enhance the alignment of paragraph in MS Word..
- CO3 : Demonstrate the use of basic functions and formulas in MS Excel.
- CO4 : Prepare Data Charts, Pie Charts and Analysis charts in MS Excel

## UNIT I

**Working with Document in Word 2007:** Applying Fonts – Spell Checking – Consulting thesaurus – Assign Character Styles – Borders and Shading – Closing of the File – Save As option – Printing your document – Editing the 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.

**Microsoft Office Excel 2007:** Copying formula – Formulas that make Decisions – Styles – Functions in Excel – Using Auto calculate – References – Sum Function – Average Function – Creating Charts in Excel. (10 Hours)

## UNIT II (Practical Session)

1. Displaying chemical and Mathematical Equations using MS Word.
2. Designing a Class Timetable using MS Word.
3. Design a Flowchart using Shapes using MS Word.

4. Design a Menu card for Hotel using Bullets and Numbered list using MS Word.
5. Create a website for Birds using MS Word.
6. Designing a Greeting card using MS Word.
7. Resume preparation using MS Word.
8. Mail Merge creation using MS Word. (10 Hours)

### **UNIT III (Practical Session)**

1. Preparing Student Mark list using MS Excel.
2. Calculate Employee Pay bill using MS Excel.
3. Inventory Management System using MS Excel.
4. String Manipulation using MS Excel.
5. Prepare Monthly Budget Report using Filter using MS Excel.
6. Prepare column chart for sales report using MS Excel. (10 Hours)

### **Text Book**

1. Dinesh Maidasani (2011), Learning Computer Fundamentals, MS Office and Internet & Web Technology, Third Edition, Firewall Media, Chennai.

**Unit I:** Page No: 95 – 117, 121 – 146, 148,149

**Unit II:** Lab Exercises

**Unit III:** Lab Exercises



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VIRUDHUNAGAR - 626 001

## VALUE ADDED COURSE

(2020 - 21 onwards)

B.C.A.

## DEPARTMENTAL COURSE

<b>Course Code: 19VCAD01</b>	<b>ARTISTIC DESIGN</b>	Duration : 30 Hours
		<b>Internal: 50</b>

## COURSE OUTCOMES

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

- understand the fundamentals of Coreldraw.
- create business cards, pamphlets, banners, newspapers, brochure, letter head with logo, books.
- gain essential graphics and visual communication skills that they can use to enhance almost every aspect of their work and later apply to their careers.

## UNIT I

**GETTING STARTED WITH CorelDRAW:** Understanding Image Types – Creating a New Document – Title bar - Menu bar – Standard Toolbar – Property bar – Toolbox – Document Window – Document Window – Document Navigator – Dockers – Color pallet – Status bar – Ruler – Saving a drawing – Opening an existing document - Working with Page Layout.

**DRAWING SHAPES:** Working with basic geometric tools – Using curves – Working with Lines – Working with Outlines – Working with Creative Vector Shape Tools – Modifying Shapes and Lines – Performing advanced operations with Line objects - Working with Brush strokes.

## UNIT II

**WORKING WITH COLORS AND FILLING OBJECTS:** Selecting colors using default color palette – Creating and Editing a custom color palette – Using Color Fills: Uniform, Fountain, Pattern, Texture, Mesh.

**HANDLING OBJECTS:** Working with Objects – Copying the properties of an Object – Transforming Objects – Combining and breaking Objects – Grouping – Creating special effects – Aligning and distributing Objects.

### **UNIT III**

**WORKING WITH TEXT:** Working with Text Types – Converting Text from one type to another – Changing the appearance of text – Finding and replacing text – Applying effects to text – Wrapping paragraph text around objects – Fitting text to an object path -  
Moving text between frames or text objects – Converting text into an object using the convert to curve command.

**WORKING WITH BITMAPS AND EXPORT OPTIONS:** Working with Image type conversions – Importing a Bitmap – Transforming a Bitmap – Exporting from CorelDRAW.

### **TEXT BOOK**

*CorelDRAW X6 in Simple Steps*, Kogent Learning Solutions Inc., Dreamtech Press, New Delhi, Edition:2014.

### **REFERENCE BOOK**

VikasGupta ,*Comdex 9-in-1 DTP Course Kit*, Dreamtech Press, New Delhi, Edition: 2014.



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**VIRUDHUNAGAR - 626 001**

**Department of Computer Applications**

**UG Departmental Value Added Course**

**(2022 - 2023 onwards)**

<b>Course Code:</b> 22UVCAD02	<b>G-Slides</b>	<b>Total Hours: 30</b>
		<b>Internal: 100 Marks</b>

## COURSE OUTCOMES

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

- CO1 : build presentations in web browser. No special software is required.
- CO2 : work on slides at the same time by people, changes as they make them, and every change is automatically saved.
- CO3 : retain their information throughout their lives and careers.
- CO4 : create a smooth presentation flow
- CO5 : facilitates an effective way of communication with the audience.

## UNIT I

**Slide Basics:** Understanding slides and slide layouts, organizing slides, customizing slide layouts, changing the theme. **Text Basics:** Entering text, working with text, Formatting text and adding hyperlinks, adding speaker notes. (10 Hours)

## UNIT II

**Adding pictures and shapes:** Inserting pictures, Formatting pictures, Inserting shapes, Formatting shapes, Reordering objects. Adding Transitions and animations.

**Presenting Slide Show:** start the slide show, navigating the presentation. (10 Hours)

## UNIT III

**Linking between slides:** Creating an interactive presentation, Turning text into link to another slide. **Inserting and editing videos:** To insert videos from you Tube. (10 Hours)

### **Text Book**

1. Step-by-step guide to Google Slides (Google Workspace apps) Kindle Edition, Barrie Roberts .

### **Reference Link**

- [https://edu.gcfglobal.org/en/googleslides/?gclid=EAIaIQobChMIwfnTtorT-wIV0oJLBR22JQNvEAAYAiAAEgLWAvD\\_BwE](https://edu.gcfglobal.org/en/googleslides/?gclid=EAIaIQobChMIwfnTtorT-wIV0oJLBR22JQNvEAAYAiAAEgLWAvD_BwE)



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VIRUDHUNAGAR - 626 001

## Departmental Value Added Course (2022- 2023 onwards)

Semester III	<b>STATISTICAL TECHNIQUES FOR QUALITY CONTROL</b>	Duration : 30 Hours
Course Code <b>22UVCOD01</b>		<b>Internal: 100 Marks</b>

### COURSE OUTCOMES

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

CO1: understand the basic concepts in Statistical Quality control, Control Chart and Acceptance Sampling

CO2 : identify the causes of variation, formulae for control charts and describe the types and uses of control charts

CO3 : develop the skill to construct  $\bar{X}$  chart, R chart, C chart and P chart and draw inference from various types of charts

### UNIT I

**Statistical Quality Control:** Quality- Definition - Dimensions of Quality - Quality Control- stages in the historical evolution of quality control - Statistical Quality Control (SQC) - Elements of SQC - Techniques of SQC Statistical : Process Control - Product Control - Causes of Variation : Chance Causes - Assignable Causes - Advantages and Limitations of Statistical Quality Control.

(8 Hours)

### UNIT II

**Control Chart:** Control Chart –Types of Control Chart- Setting up of a Control Procedure- X chart – R chart - Chart for the Standard Deviation - R chart vs Standard Deviation Chart- Control Chart for C – Uses of C Chart- Control Chart for P. (14 Hours)

### **UNIT III**

**Total Quality Management** –Meaning- Principles-Benefits- Acceptance Sampling - Role- Types- Selection of Sampling Plan- Construction of OC Curve -Technical Terms used in Sampling Inspection Plan.

(8 Hours)

### **TEXT BOOK**

Gupta, S.P. (2020). *Statistical Methods*: New Delhi: Sultan Chand & Sons, 45<sup>th</sup> Edition 2017. (Page number: 1079-1122)





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**VIRUDHUNAGAR - 626 001**

## SYLLABUS

### Value Added Course

#### Departmental Course B.Com (SF)

Course Code: <b>20VCOD02</b>	<b>GUIDANCE FOR AGENCY</b>	Duration : 30 Hours
		Internal: 50

### COURSE OUTCOMES

On Completion of the Course, the students will be able to

- gain knowledge about types of agents
- be aware of role of agents in society
- familiar with the guidelines to become an agent

### UNIT I

Agent: Meaning – Definition – Characteristics – Functions – Importance – Types of agent's – Rights – Duties of Agents. (10 Hours)

### UNIT II

Life Insurance Agents: Introduction to Insurance – Life Insurance Industry today – Role of Insurance Agent's in providing Great Customer Service – Guidelines to Become an Agent. (10 Hours)

### UNIT III

Agents for Goods and Postal Services: Meaning – Definition – Types of agents for Goods and Postal Services - Points to be considered while establishing an agency for goods and postal services – Termination of agency. (10 Hours)

### TEXT BOOK

Study material prepared by the course designer



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VIRUDHUNAGAR - 626 001

## Departmental Value Added Course (2022- 2023 onwards)

Semester II	<b>BUSINESS SKILLS DEVELOPMENT</b>	Duration : 30 Hours
Course Code <b>22UVCOD02</b>		<b>Internal: 100 Marks</b>

### COURSE OUTCOMES

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

CO1 : solve the problems in business and make creative approaches to solve.

CO2 : make good and give effective communication skills in their business.

CO3 : apply technical skills in their real time business.

### UNIT I

**Problem Solving, Creativity & Innovation:** Meaning of Problem Solving - Need for Problem Solving - Steps in Analytical Problem Solving - Limitations.

**Creativity:** Meaning – Components – Types of Creativity- Stages in Creative Process – Obstacles in Creativity – Approaches to Creative Problem Solving. (10 Hours)

### UNIT II

**Oral and Written Presentations:** Introduction – Essential Elements of Effective Presentations – Strategy – Structure – Support – Style – Supplement - Style in Oral and Written Communication.

(10 Hours)

### UNIT II

**Technical Skills:** E-Mail Creation – Ms Word: Font – Paragraph, Ms Excel – Insert – Delete Row & Column – Change the Height & Width of the Row and Column – MS Powerpoint – Insert –

Start Slide Show-- Web and Social Skills – Troubleshooting – Graphic Design – Blogging – Writing Skills – Job Specific Skills. (10 Hours)

### **TEXT BOOK**

Study Material prepared by the Course Teacher.

### **REFERENCE BOOKS**

1. David A. Whetten & Kim S. Cameron., (2017). *Developing Management Skills*, Pearson India Education Services Pvt. Ltd., Eighth Edition.
2. Scott Isaksen, G. Brian Dorval, K. & Donald Treffinger, J.,(2010). *Creative Approaches to Problem Solving: A Framework for Innovation and Change*, Sage Publications, California, Third Edition.
3. Dinesh Maidasani, (2008). *Learning Computer Fundamentals*, Ms- Office and Internet & Web Technology, New Delhi, Firewall Media.



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**VIRUDHUNAGAR - 626 001**

## SYLLABUS

Department of Commerce (Computer Applications) (SF)

Value Added Course -Interview Skill Training

Departmental Course

**Course Code: 19VCOD03**

**Contact Hours: 30**

### Unit 1: PRE INTERVIEW PREPARATION

Job Application - Cover Letters – Cover Letter Tips – Preparation of Curriculum Vitae (Bio-Data, Resume) – Tips for writing an effective CV – Positive Attitude – Benefits – Ways of developing Positive Attitude – Art of Speaking – Barriers to Communication – Tips for effective Communication.

(10 Hours)

### Unit 2: INTERVIEW PROCESS

Preliminary Interview – Psychological Tests – Group Discussion – Final Job Interview (including Telephonic Interview and Job Fairs).

(8 Hours)

### Unit 3: PRACTICAL SESSION

Preparation of Cover Letter - Preparation of various types of CV/Bio-Data/Resume – Training to Group Discussion – Training to Job Interviews

(12 Hours)

### Text Books

1) Jain, V.K., and Om Prakash Biyani, Business Communication, S.Chand & Company Limited., New Delhi, 2007.

2) Alex, K., Soft skills, S.Chand Company Limited, New Delhi, 2009



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## Departmental Value Added Course (2022- 2023 onwards)

Semester II	<b>PRINCIPLES OF EVENT MANAGEMENT</b>	Duration : 30 Hours
Course Code <b>22UVCOD03</b>		<b>Internal: 100 Marks</b>

### COURSE OUTCOMES

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

CO1: understand the basic concepts of event management

CO2: describe the event management procedure

CO3: apply the procedure for conducting an event

### UNIT I

**Introduction to Event Management:** Event : Meaning – Definition – Characteristics of Events – Categories of Events – Essential Skills required for Event Management- Functional Areas in Event Management – Analysis of Events, Scope of Event, Decision Makers – Procedures to be followed in Conducting of Events.

(10 Hours)

### UNIT II

**Event Management Procedure:** Principles for Holding an Event, General Details, Permissions – Policies, Government and Local authorities- Photographic Performance, License, Utilities.

(10 Hours)

### UNIT III

**Conduct of an Event:** Preparing a Planning Schedule, Organizing Tables, Assigning Responsibility, Communication and Budget of Event – Check List, Computer Aided Event

Management, Roles and Responsibilities of event Managers for Different Events.  
(10 Hours)

### **TEXT BOOK**

Annie Stephen, & Hariharan., (2016). *Principles of Event Management*, Mumbai: Himalaya Publishing House.

Unit I – P.NO – 1-36

Unit II – P.NO - 37-67

Unit III – P.NO – 68-99

### **REFERENCE BOOK**

Tony Bhe, Peter Glasmacher, (2004). *Event Management and Best Practices*, International Technical Support Organisation.



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**B.Com. (Computer Applications)**  
**Departmental Value Added Course**  
**(2022- 2023 onwards)**

Semester IV	<b>ELEMENTS OF MANAGEMENT</b>	Duration : 30 Hours
Course Code <b>22UVCOD04</b>		<b>Internal: 100 Marks</b>

## COURSE OUTCOMES

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

CO1 : understand the need and importance of managerial functions in an organization

CO2: describe the managerial functions of management

CO3: apply the managerial functions in business transactions

## UNIT I

**Management:** Functions – Importance – Henry Fayol’s Principles of Management – Taylor’s Principles of Scientific Management.

**Planning:** Importance – Steps in Planning Process – Methods of Planning. (10 Hours)

## UNIT II

**Organising:** Characteristics – Functions – Types of Organisation – Organisational Charts - Organisational Manuals – Delegation – Decentralisation – Span of Management.

**Staffing:** Functions – Sources of Recruitment.

**Direction:** Characteristics – Importance. (10 Hours)

## UNIT III

**Motivation:** Importance – Types – Theories (Maslow Hierarchy of Needs only)

**Leadership:** Qualities – Leadership Style.

**Co-ordination:** Characteristics – Importance.

**Controlling:** Steps in Control Process – Techniques of Control. (10 Hours)

## TEXT BOOK

Study material prepared by course teacher

## **REFERENCE BOOKS**

1. Ramasamy, T. (2008). Principles of Management, New Delhi: Himalaya Publishing House Pvt. Ltd. 9<sup>th</sup> Edition.
2. Prasad, L.M. (2007)  
. Principles of Management, New Delhi: Sultan Chand & Sons, 7<sup>th</sup> Edition.





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### BBA

#### Departmental Value Added Course (2022- 2023 onwards)

Semester III	<b>INTERDISCIPLINARY MANAGEMENT SKILLS</b>	Hours: 30
<b>Departmental Value Added Course</b>		Credits:
<b>Course Code 22UVBAD01</b>		Marks: 50

#### COURSE OUTCOMES

On completion of the course, students will able to

CO1: Recollect basic management concepts in business

CO2: Understand recruitment, advertisement and trading

CO3: Illustrate recruitment process and ad-making process

CO4: analyse a business, personality or industry and various alternatives and enable decision making

CO5: assessing the decisions taken to figure out areas of improvement

#### UNIT I

Marketing Lab: Creating an advertisement of a product – Print & Video

HR Lab: Recruitment (10 Hours)

#### UNIT II

Presentation skill Lab: Analysis of Business personality- Industry and Company - Magazine articles (10 Hours)

#### UNIT III

Stock Trading lab: Introduction to Stock market and Stock trading (10 Hours)

#### TEXT BOOK:

1. Butterfield, Jeff (2019). Soft Skills for Everyone. Cengage India Learning Pvt. Ltd., Delhi, 2nd Edition.



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**VIRUDHUNAGAR - 626 001**

**BBA**

**Departmental Value Added Course  
(2022- 2023 onwards)**

Semester II	<b>ETHICS AND ETHOS FOR MANAGEMENT</b>	Hours: 30
<b>Departmental Value Added Course</b>		Credits:
<b>Course Code</b> 22UVBAD02		Marks:  100

## **COURSE OUTCOMES**

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

CO1: identify the teachings of Indian ethos [K1]

CO2: describe the basics of ethics in business [K2]

CO3: illustrate the impact of ethos and ethics in business [K3]

CO4: explain how values are formed understanding ethos and ethics [K4]

CO5: infer about the benefits of practicing ethos and ethics in business [K4]

## **UNIT I**

Introduction to Ethos – Meaning - The meaning of Bharat - Indian work ethos and principles of Indian management - Indian Business Culture – Corporate governance

## **UNIT II**

Introduction to Ethics – Business Ethics – Need - Principles of Business Ethics – Benefits of ethical practices - Unethical business practices - Core Values of business –

## **UNIT III**

Case study discussion on Ethos – Ethics - Corporate governance – Social responsibility.

## **TEXT BOOKS**

1. Nandagopal R and Ajith Sankar (2010). *Indian Ethos and Values in Management* . Mc Graw Hill Education
2. N M Khandewal (2011). *Indian Ethos and Values for Management*. Himalaya Publishing House, Mumbai.



**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

**இளங்கலை இரண்டாமாண்டு பருவம்**  
(2022 - 23 ஆம் ஆண்டில் சேரும் மாணவர்களுக்குரியது)

Course Code: 22VTAI01	<b>போட்டித் தேர்வில் தமிழ்</b>	Duration : 30 Hours
		Internal : 25

**கூறு 1**

1. பொருத்துதல் - பொருத்தமான பொருளைத் தேர்வு செய்தல் (ii) புகழ் பெற்ற நூலாசிரியர்.
2. தொடரும் தொடர்பும் அறிதல் - (i) இத்தொடரால் குறிக்கப்பெறும் சான்றோர்  
(ii) அடைமொழியால் குறிக்கப்பெறும் நூல்
3. பிரித்தெழுதுக.
4. எதிர்ச்சொல்லை எடுத்தெழுதுதல்
5. பொருந்தாச் சொல்லைக் கண்டறிதல்
6. பிழை திருத்தம் (i) சந்திப்பிழையை நீக்குதல் (ii) ஒருமை பன்மை / பிழைகளை நீக்குதல்  
மரபுப் பிழைகள், வழுவச் சொற்களை நீக்குதல் / பிறமொழிச் சொற்களை நீக்குதல்
7. ஆங்கிலச் சொல்லுக்கு நேரான தமிழ்ச் சொல்லை அறிதல்
8. ஒலி வேறுபாடறிந்து சரியான பொருளையறிதல்
9. ஒரெழுத்து ஒருமொழி உரிய பொருளைக் கண்டறிதல்
10. வேர்ச்சொல்லைத் தேர்வு செய்தல்
11. வேர்ச்சொல்லைக் கொடுத்து ∴ வினைமுற்று, வினையெச்சம், வினையாலணையும் பெயர்,  
தொழிற் பெயரை / உருவாக்கல்
12. அகர வரிசைப்படி சொற்களைச் சீர் செய்தல்
13. சொற்களை ஒழுங்குபடுத்தி சொற்றொடராக்குதல்
14. பெயர்ச்சொல்லின் வகையறிதல்
15. இலக்கணக் குறிப்பறிதல்
16. விடைக்கேற்ற வினாவைத் தேர்ந்தெடுத்தல்
17. எவ்வகை வாக்கியம் எனக் கண்டெழுதுதல்
18. தன்வினை, பிறவினை, செய்வினை, செயப்பாட்டு வினை வாக்கியங்களைக் கண்டெழுதுதல்
19. உவமையால் விளக்கப்பெறும் பொருத்தமான பொருளைத் தேர்ந்தெழுதுதல்

20. எதுகை, மோனை, இயைபு இவற்றுள் ஏதேனும் ஒன்றைத் தேர்ந்தெழுதுதல்

### கூறு 2

1. திருக்குறள் தொடர்பான செய்திகள்.
2. அறநூல்கள் நாலடியார், நான்மணிக்கடிகை, பழமொழிநானூறு, முதுமொழிக்காஞ்சி, திரிகடுகம், இன்னா நாற்பது, இனியவை நாற்பது, சிறுபஞ்சமூலம், ஏலாதி, ஓளவையார் பாடல்கள் தொடர்பான செய்திகள், பதினெண்கீழ்க்கணக்கு நூல்களில் பிற செய்திகள்.
3. கம்பராமாயணம் - தொடர்பான செய்திகள் மேற்கோள்கள், பா வகை, சிறந்த தொடர்கள்
4. புறநானூறு- அகநானூறு, நற்றிணை, குறுந்தொகை, ஐங்குறுநூறு, கலித்தொகை தொடர்பான செய்திகள், மேற்கோள்கள் அடிவரையறை, எட்டுத்தொகை, பத்துப்பாட்டு நூல்களில் உள்ள பிற செய்திகள்.
5. சிலப்பதிகாரம் - மணிமேகலை - தொடர்பான செய்திகள், மேற்கோள்கள், சிறந்த தொடர்கள் உட்பிரிவுகள் மற்றும் ஐம்பெரும் - ஐஞ்சிறுங் காப்பியங்கள் தொடர்பான செய்திகள்
6. பெரியபுராணம் - நாலாயிர திவ்வியப்பிரபந்தம் - திருவிளையாடற்புராணம் - தேம்பாவணி - சீறாப்புராணம் தொடர்பான செய்திகள்
7. சிற்றிலக்கியங்கள்  
திருக்குற்றாலக்குறவஞ்சி - கலிங்கத்துப்பரணி - முத்தொள்ளாயிரம், தமிழ்விடு தூது - நந்திக்கலம்பகம், விக்கிரமசோழன் உலா, முக்கூடற்பள்ளு, காவடிச்சிந்து, திருவேங்கடத்தந்தாதி, முத்துக்குமாரசுவாமி பிள்ளைத் தமிழ், பெத்தலகேம் குறவஞ்சி, அழகர் கிள்ளைவிடுதூது, இராஜராஜன் சோழன் உலா தொடர்பான செய்திகள்
8. மனோன்மணியம் - பாஞ்சாலி சபதம் - குயில் பாட்டு - இரட்டுற மொழிதல் (காளமேகப்புலவர் - அழகிய சொக்கநாதர் தொடர்பான செய்திகள்)
9. நாட்டுப்புறப்பாட்டு - சித்தர் பாடல்கள் தொடர்பான செய்திகள்
10. சமய முன்னோடிகள் அப்பர், சம்பந்தர், சுந்தரர், மாணிக்கவாசகர், திருமூலர், குலசேகர ஆழ்வார், ஆண்டாள், சீத்தலைச் சாத்தனார், எச்.ஏ.கிருஷ்ண பிள்ளை, உமறுப்புலவர் தொடர்பான செய்திகள், மேற்கோள்கள், சிறப்புப் பெயர்கள்.

### கூறு 3

1. பாரதியார், பாரதிதாசன், நாமக்கல் கவிஞர், கவிமணி தேசிக விநாயகம் பிள்ளை தொடர்பான செய்திகள், சிறந்த தொடர்கள், சிறப்புப் பெயர்கள்
2. மரபுக்கவிதை - முடியரசன், வாணிதாசன், சுரதா, கண்ணதாசன், உடுமலைநாராயணகவி, பட்டுக்கோட்டை கல்யாணசுந்தரம், மருதகாசி தொடர்பான செய்திகள், அடைமொழிபெயர்கள்.
3. புதுக்கவிதை - ந.பிச்சமுர்த்தி, சி.சு.செல்லப்பா, தருமு சிவராமு, பசுவய்யா, இரா.மீனாட்சி, சி.மணி, சிற்பி, மு.மேத்தா, ஈரோடு தமிழன்பன், அப்துல்ரகுமான், கலாப்பிரியா, கல்யாணஜி, ஞானக் கூத்தன், தேவதேவன், சாலை இளந்திரையன், சாலினி இளந்திரையன், ஆலந்தூத் மோகனரங்கன் - தொடர்பான செய்திகள், மேற்கோள்கள், சிறப்புத் தொடர்கள் மற்றும் எழுதிய நூல்கள்

4. தமிழில் கடித இலக்கியம் - நாட்குறிப்பு, நேரு - காந்தி - மு.வ. - அண்ணா - ஆனந்தரங்கம் பிள்ளை நாட்குறிப்பு தொடர்பான செய்திகள்
5. நாடகக்கலை - இசைக்கலை தொடர்பான செய்திகள்
6. தமிழில் சிறுகதைகள் தலைப்பு - ஆசிரியர் - பொருத்துதல்
7. கலைகள் - சிற்பம் - ஓவியம் - பேச்சு - திரைப்படக்கலை தொடர்பான செய்திகள்
8. தமிழின் தொன்மை - தமிழ் மொழியின் சிறப்பு, திராவிட மொழிகள் தொடர்பான செய்திகள்
9. உரைநடை - மறைமலையடிகள், பரிதிமாற் கலைஞர், ந.மு.வேங்கடசாமி நாட்டார், ரா.பி.சேதுப் பிள்ளை, திரு.வி.க., வையாபுரிப்பிள்ளை - மொழி நடை தொடர்பான செய்திகள்
10. உ.வே.சாமிநாத ஐயர், தெ.பொ.மீனாட்சி சுந்தரனார், சி.இலக்குவனார் - தமிழ்ப்பணி தொடர்பான செய்திகள்
11. தேவநேயப்பாவாணர் - அகரமுதலி, பாவலரேறு பெருஞ் சித்திரனார், தமிழ்த்தொண்டு தொடர்பான செய்திகள்
12. ஜி.யு.போப் - வீரமாமுனிவர் தமிழ்த்தொண்டு சிறப்புத் தொடர்கள்
13. பெரியார் - அண்ணா - முத்துராமலிங்கத் தேவர் - அம்பேத்கர் - காமராசர் - சமுதாயத் தொண்டு
14. தமிழகம் - ஊரும் பேரும், தோற்றம் மாற்றம் பற்றிய செய்திகள்
15. உலகளாவிய தமிழர்கள் சிறப்பும் - பெருமையும் - தமிழ்ப்பணியும்
16. தமிழ்மொழியில் அறிவியல் சிந்தனைகள் தொடர்பான செய்திகள்
17. தமிழ் மகளிரின் சிறப்பு - அன்னிபெசண்ட் அம்மையார், மூவலூர் ராமாமிர்த்தத்தம்மாள், டாக்டர்.முத்துலட்சுமி ரெட்டி, விடுதலைப் போராட்டத்தில் மகளிர் பங்கு (தில்லையாடி வள்ளியம்மை, ராணி மங்கம்மாள்)
18. தமிழர் வணிகம் - தொல்லியல் ஆய்வுகள் - கடற் பயணங்கள் - தொடர்பான செய்திகள்
19. உணவே மருந்து - நோய் தீர்க்கும் மூலிகைகள் தொடர்பான செய்திகள்  
சமயப் பொதுமை உணர்த்திய தாயுமானவர், இராமலிங்க அடிகளார், திரு.வி.க.

## பாட நூல்கள்

1. வகைமை நோக்கில் தமிழ் இலக்கிய வரலாறு - முனைவர் பாக்கியமேரி, நியூ செஞ்சுரி புக் ஹவுஸ் (பி) லிட், அம்பத்தூர், சென்னை - 98, ஐந்தாம் பதிப்பு 2013.
2. தமிழ் இலக்கிய வரலாறு - ஹரி.விஜயலட்சுமி, என்னெஸ் பப்ளிகேஷன்ஸ், உடுமலைப்பேட்டை - 28, நான்காம் பதிப்பு 2011.



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**VIRUDHUNAGAR - 626 001**

**Department of English**

**UG Interdepartmental Value Added Course**

**(2022 - 2023 onwards)**

<b>Course Code:</b> <b>22UVENI01</b>	<b>Professional Skills and Workplace Ethics</b>	<b>Total Hours: 30</b>
		<b>Internal: 100 Marks</b>

### **COURSE OUTCOMES**

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

- CO1 : understand the significance of professional image in career
- CO2 : identify the traits of impressive personality
- CO3 : comprehend Professional skills like Work ethics, Managerial skills
- CO4 : nurture the sense of decision making and goal setting
- CO5 : Inculcate interpersonal skills needed for a smooth relationship at the workplace

### **Unit I**

#### **Presenting a Professional Image**

1. Managing your Image
2. Dressing appropriately
3. Maintaining Professional Wardrobe
4. Practising Good Grooming and Hygiene
5. Interacting with others
6. Improving your Speech
7. Managing Online Profile

(10 Hours)

## **Unit II**

### **Developing Professional Work Ethics**

1. Work Ethic & Commitment
2. Being Dependable & Reliable
3. Managing your Time
4. Managing your Stress
5. Maintaining a Professional Workspace
6. Taking advantage of Professional opportunities
7. Earning Recognition (10 Hours)

## **Unit III**

### **Building Professional Relationship**

1. Understanding Professional Relationships
2. Respecting Social Protocols
3. Networking Professionally
4. Showing Basic Office Courtesies
5. Socializing Professionally
6. Displaying Optimism and Enthusiasm
7. Recovering from Difficult Interpersonal situations (10 Hours)

### **Text Book:**

1. Butterfield, Jeff. (2018). *Soft Skills for Everyone*. Delhi: Cengage Learning India Private Limited.





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### B.A. History

#### VALUE ADDED COURSE –INTER - DEPARTMENTAL

(2020 – 21 onwards)

Code:	<b>HISTORY FOR COMPETITIVE EXAMINATIONS</b>	Total Hours: 30
22UVHII01		Internal Marks: 50

#### Course Outcomes:

On completion of the course the student will be able to

CO1: appear for the competitive examinations.

CO2: understand the Heritage of Indian Culture.

CO3: know the fusion of Hindu Muslim culture.

CO4: gain knowledge over the economic reforms of Sultanates.

CO5: analyse the establishment, reforms and policies of British Rule in India.

#### UNIT I:

Geographical Features of India – Sources – Indus Valley Civilization – Vedic Civilization – Buddhism

– Jainism – Greek and Persian Invasions - Mahajanapadas- Mauryan Empire – Kushan Dynasty –

Gupta Dynasty – Vardhana Dynasty – Rajputs.

(10 hours)

#### UNIT II:

Arab Invasion – Mahmud Ghazni – Mohammad Ghori – Delhi Sultanates – Vijayanagar Empire.

(10 hours)

#### UNIT III:

Advent of Europeans – Battle of Plassey, Buxar - Carnatic Wars, Mysore Wars and Maratha Wars –

Warren Hastings – Wellesley – William Bentinck – Dalhousie – Canning - Ripon – Curzon – Socio-

Religious Reform Movements – Indian National Congress – Pre Gandhian Era – Gandhian Era –

Mission and Plans towards Independence – Indian Independence Act,1947.

(10 hours)

## **REFERENCE BOOKS:**

1. AnletSobithabai(2005). *History of India up to AD 712*, Marthandam: Sharon Publication.
2. AnletSobithabai(2005). *History of India (AD 712 to 1761)*, Marthandam: Sharon Publication.
3. AnletSobithabai(2005). *History of India (AD1761 to 1947)*, Marthandam: Sharon Publication.
4. Four Authors (1992)*A Simple History of India from Earliest Times 1000AD*,New Delhi: SBD Publications and Distributors.
5. Raychoudhary,S.C (2002) *History of India (From Earliest times to AD 1526)*,New Delhi: Surjeet Publications.

Dr.M.Geetha.

**Head of the Department.**

Mrs.M.Maheswari

**Course Designer**



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### VALUE ADDED COURSE - INTERDEPARTMENTAL COURSE EVEN SEMESTER VALUE ADDED COURSE

Course Code: <b>21VMTI01</b>	<b>VEDIC MATHEMATICS</b>	Duration : 30 Hours
		Internal: 50

#### COURSE OUTCOMES

On completion of this course the learners will be able to

CO1: get acquainted with short but sharp sutras available in Vedas.

CO2: enhance the problem solving skills for competitive examinations.

CO3: acquire the knowledge in Numerical Aptitude which is a part of any Competitive Examination through Vedic Mathematics.

CO4: apply the acquired computational skills in solving problems with speed and accuracy.

CO5: use Short-cut methods and time - management skills to easily address the challenges in competitive examinations.

#### UNIT I

Addition – Subtraction – Multiplication – Division - Square and Square Root – Cube and Cube Root – Decimals - Factorization (10 hours)

#### UNIT II

Highest Common Factor (HCF) – Simple Equations – Quadratic Equations – Cubic Equations - Biquadratic Equations – Simultaneous Equations (10 hours)

#### UNIT III

Factorizations and Differential Calculus – Partial Fractions - Integration by Partial Fractions – Pythagoras Theorem – Appolonius Theorem – Analytical Geometry (10 hours)

#### TEXT BOOK

For Competitive Exams, Vedic Mathematics MADE EASY, Pandit Ramnandan Shashtri, Arihant Publications (I) Pvt. Ltd, Meerut.

## **REFERENCE BOOKS**

1. Fundamentals & Applications of Vedic Mathematics 2014, New Delhi: State Council of Educational Research & Training.
2. Vedic Mathematics, V.S.Agarwala, Bharati Krsna Tirthaji. 16<sup>th</sup> Edition



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VIRUDHUNAGAR - 626 001

Department of Mathematics (SF)

Interdepartmental Value Added Course – Numerical Aptitude

Duration : 30 hours

Subject Code : 21VMTI02

## COURSE OUTCOMES

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

CO 1 : define the basic concepts needed for arithmetic calculations.[K1]

CO 2 : explain various shortcut methods involved in aptitude problems.[K2]

CO 3 : discuss the shortcut methods in problem solving. [K2]

CO 4 : apply the acquired computational skills in solving problems.[K3]

CO 5 : find solutions to various aptitude problems.[K3]

### Unit I

Problems on Numbers, Problems on Ages, Percentage (10 Hours)

### Unit II

Profit & Loss, Ratio & Proportion, Time & Distance, Time & Work (10 Hours)

### Unit III

Calendar, Permutations & Combinations, Odd Man Out & Series (10 Hours)

## PRESCRIBED BOOK :

Aggarwal. R.S. (Reprint 2014). *Quantitative Aptitude for Competitive Examinations*, (Seventh Revised Edition), New Delhi: S.Chand Publications.



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VIRUDHUNAGAR - 626 001

Department of Physics

Value Added Course - Interdepartmental

Semester VI	<b>Handling of electrical and electronic devices</b>	Hours: 30
VAC		Internal: 50
Course Code <b>21VPHI01</b>		

### Course outcomes:

On completion of the course students will be able to

- identify electrical and electronic components, their terminals
- explain the functions of electrical and electronic devices and check their using measuring instruments.
- calculate power consumption in kwh
- explain single phase & three phase AC circuits
- describe the handling of household electrical appliances

### Unit I

Conductors-semiconductors-insulators-resistance and types- capacitance-principle of capacitor and types-diode-types of diodes-transistor-draw symbols of various electronic components – identify the terminals of the following components: Diode, Zener diode, LED, Photo diode, BJT, Photo transistor, LDR, Solar cell, Photocell and 7 Segment Display

Compare the values with the measured by using measuring instruments like Digital Multimeter: Resistors inductors, capacitors, potentiometers, Thermistor

### Unit II

Direct current and AC – Transformer –Power – Kilo watt hour –Fuse-Types of switches-Relay- Tube light, CFL and LED bulbs.

Phase, Neutral and Earth - Difference between Ground and Earth -Single Phase & Three Phase  
AC Circuits

Wiring, Soldering and Testing of Electronics Circuit

### **Unit III**

Working and maintenance of home appliances – Fan-Iron box- Geyser- Microwave Oven

#### **Demonstration:**

- Verification of Ohm's law
- Design of a potential divider circuit
- Resistor – Series and Parallel connection
- LED – Serial and Parallel connection
- Single bulb controlled by switch
- Staircase wiring and two-way switch connection
- Identify the terminal of Seven segment display

E-resources and study material prepared by Department of Physics

#### **References**

1. Internet resources:
2. <https://www.watelectronics.com/major-electrical-electronic-components/>
3. [https://www.youtube.com/watch?v=hgTgx\\_h5QOk](https://www.youtube.com/watch?v=hgTgx_h5QOk)
4. <https://www.electronicshub.org/difference-between-single-phase-and-three-phase/>
5. <https://www.youtube.com/watch?v=wjv9nHNkXEA>
6. <https://www.grainger.com/know-how/equipment-information/kh-types-of-lamps-and-bulbs>



# V.V.VANNIAPERUMAL COLLEGE FOR WOMEN

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VIRUDHUNAGAR - 626 001

## SYLLABUS

Department of Chemistry

Value Added Course - Interdepartmental

Value Added Course	<b>Processing of Consumer Products</b>	Total hours : 30
Course Code <b>19VCHI01</b>		Internal : 50

### COURSE OUTCOME

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

CO 1: undertake an indepth study of application of science in small scale preparation of consumer products

CO 2: gain knowledge on various techniques of analysis

CO 3: be familiarize with practical knowledge on small scale industrial preparations of consumer products

### UNIT I

Manufacture of shampoo, soap and soap powder – classification – raw materials and its uses – manufacturing procedure – flow chart diagram – safety handling of raw materials

### UNIT II

Manufacture of cup candle and incense cone – classification – raw materials and its uses – manufacturing procedure – flow chart diagram – safety handling of raw materials

### UNIT III

Manufacture of toilet cleaner, phenyl – classification – raw materials and its uses – manufacturing procedure – flow chart diagram – safety handling of raw materials



## **PRACTICAL**

1. Manufacture of bath soap
2. Manufacture of soap powder
3. Manufacture of Shampoo
4. Manufacture of toilet cleaner (soap oil)
5. Manufacture of phenyl
6. Manufacture of cup candle
7. Manufacture of incense cone (dhoop)
8. Manufacture of cleaning powder
9. Manufacture of ink
10. Manufacture of herbal soap

## **TEXT BOOK :**

1. Bedakar, T.H., Brij Mohan, (1984) *Small Scale Industries*, New Delhi Dewan Chand Anand & Sons publishers, 9<sup>th</sup> Edition.

## **REFERENCE BOOKS:**

1. Shrivastava, S.B. (1984) *Soap, detergent and Perfume Industry*, New Delhi, Small Industries Research Institute,
1. Kirk-Othmer, (1972) *Encyclopedia of chemical Technology Vol – I to Vol – 22*.
2. Sharma, B.K., (2003) *Industrial Chemistry*, Goyal Publications, Meerut,
3. Gupta, R.K. *Selected Small Scale Plastics*, Delhi, Small Industries Publications.



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### **B.Sc. ZOOLOGY**

**(2018 -2019 onwards)**

<b>Semester</b>	<b>VERMITECHNOLOGY</b>	Total hours : 30
<b>Value Added Course- Interdepartmental</b>		
<b>19VZYI01</b>		Internal : 50

### **COURSE OUTCOMES**

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

- learn the fundamentals and culture methods of earthworms.
- get the basic knowledge about the methods and applications of vermicomposting.
- provide self employment opportunities for folklore.

### **UNIT I**

Scope and importance of vermitechnology, Culturable species of Earthworms- *Perionyx excavatus*) and *Megascolex mauritii* only. Morphology of earthworm- *Eisenia foetida* (manure worm).

### **UNIT II**

Vermiculture and Vermicomposting – Steps and methods – Bin, Windrow and Tray. Economic importance of vermicompost.

### **UNIT - III**

Vermicast- Formation, Composition and importance.

Vermiwash - Preparation, composition and applications.

Predators – Ants, Birds and Mole.

Parasites - Centipedes and Mites.

**TEXT BOOK:**

1. Seethalakshmi, M. and Santhi, R. (2012). *Vermiculture*. Nagercoil: Saras Publication.

**REFERENCE BOOKS:**

1. Malhotra, P, (2008).*Economic Zoology*. New Delhi: Adhyayan Publications and Distributers.
2. Renganthan, L.S. (2006). *Vermitechnology from soil health to human health*. India: Agrobios.
3. Arumugam, N. Murugan, T. Johnson Rajeswar, J. and Ram Prabu, R. (2015). *Applied Zoology*. Nagercoil: Saras Publication.

**WEBSITE REFERENCES:-**

1. <https://www.google.co.in/bhalwalker+ecological+research+institute>.
2. [www.baif.gov.in/www.baif.org.in](http://www.baif.gov.in/www.baif.org.in)

Course Designer

Dr. R.Radhalakshmi



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**VIRUDHUNAGAR - 626 001**

**VALUE ADDED COURSE**

## **PROCESSING OF FRUITS AND VEGETABLES**

**19VHSI01**

**Total Hours: 30**

### **COURSE OUTCOMES**

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

- develop the ability in preserving fruits and vegetables.
- understand the basic principles underlying food preservation.
- develop entrepreneurial skills and provide avenues for self-employment.

### **UNIT I**

Squashes and syrups – Preparation and problems encountered while preparing.

### **UNIT II**

Preparation of jam and jelly and problems encountered in preparation. Tests for doneness of jam and jelly.

### **UNIT III**

Vegetables preservation by using chemicals and salt – Raw materials used in pickle, preparation and problems in pickle making.

### **REFERENCE BOOKS**

1. Vennila,P and Kanchana,S(2003), Principles on Preservation of Fruits and Vegetables, Ratna Publications, Madurai.
2. Srilakshmi.B (2011), Food Science, New Age International Ltd., New Delhi.



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**VIRUDHUNAGAR - 626 001**

**Department of Biochemistry**

**UG Interdepartmental Value Added Course**

**(2022 -2023 onwards)**

<b>Course Code</b> <b>22UVBCI01</b>	<b>Mushroom Spawn Production</b> <b>and Cultivation</b>	<b>No. of Hours : 30</b>
		<b>Internal : 100 Marks</b>

## **Course Outcomest**

, The students will be able to

- CO1 : describe the biology of mushrooms, its types, marketing and various mushroom recipe preparation
- CO2 : outline the cultivation methods of different mushroom varieties, marketing strategies
- CO3 : apply the knowledge of mushroom cultivation, marketing and mushroom recipe preparation.

## **UNIT I**

Introduction to mushroom – Importance of mushroom and nutritive value – Life cycle of mushroom. Identification of Mushroom – Edible and Poisonous Mushrooms – Types of Mushrooms.

(9 Hours)

## **UNIT II**

Mushroom cultivation techniques: Culture media preparation – Selection of mushrooms to be cultivated – Production of the culture or starter – Preparation of spawn – Preparation of the compost – Spawning, Harvesting, Post harvesting technology – Prevention and control measures.

(12 Hours)

## **UNIT III**

Preservation: Short term storage and Long term storage. Preparation of Mushroom Recipes and Economics of mushroom cultivation. Health benefits of mushroom.

(9 Hours)

### **Text Books**

1. Marimuthu, T. et al. (1991). Oster Mushroom. Department of Plant Pathology. Tamil Nadu Agricultural University, Coimbatore.
2. Pathak, V.N. and Yadav, N.(1998). Mushroom Production and Processing Technology. Agrobios, Jodhpur.
3. Tewari Pankaj Kapoor, S.C. (1988). Mushroom Cultivation. Mittal Publication, New Delhi.
4. Study Material prepared by the Faculty of Biochemistry.

### **Reference Books**

1. Shu Fing Chang, Philip G. Miles and Chang, S.T. (2004). Mushrooms Cultivation, nutritional value, medicinal effect and environmental impact. 2nd ed., CRC press.
2. Nita Bhal. (2000). Handbook on Mushrooms. 2<sup>nd</sup> ed. Vol. I and II. Oxford and IBH Publishing Co. Pvt. Ltd., New Delhi.



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**VIRUDHUNAGAR - 626 001**

### **B.Sc., MICROBIOLOGY**

**SEMESTER VI**

**DURATION: 30 Hours**

**INTER DEPARTMENTAL COURSE - VALUE ADDED COURSE**

**FOOD MICROBIOLOGY AND QUALITY CONTROL**

**SUBJECT CODE-19VMBI01**

#### **COURSE OUTCOMES**

The students will be able to

- Acquire an elementary knowledge about microorganisms in food
- Acquire knowledge about spoilage and contamination of foods
- Understand the importance of fermentation and preparation of fermented foods
- Know the hazard analysis and Critical points

#### **UNIT – 1**

Introduction to food microbiology – General morphology of microorganisms – Bacteria, Fungi, Virus and Protozoa. Effect of environmental factors on growth of microorganisms in food – pH, water activity, oxygen availability and temperature. (7 Hours)

#### **UNIT – II**

Microbiology of different foods - Spoilage, contamination and preservation of milk and vegetables. Introduction to fermentation - Role of microbes in fermentation - Preparation of fermented foods like sauerkraut and pickles. (7 Hours)

#### **UNIT – III**

Food safety: Characterization and risk analysis – Food hazards: Physical, Chemical and biological systems for food safety: Hazard analysis Critical control point (HACCP) and its implementation. (7 Hours)

### **Experiments**

1. Determination of milk quality – Methylene blue dye reduction test (Demonstration)
2. Enumeration of microorganisms in vegetables. (Demonstration)
3. Enumeration of microorganisms in pickles. (Demonstration) (9 Hours)

### **Text book**

1. Frazier, WC and Westhoff DC, (2012). *Food Microbiology*, 4/e, McGraw-Hill, New York.





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### VALUE ADDED COURSE

(INTERDEPARTMENTAL)

(2021 -22 onwards)

Semester VI	<b>BIOPESTICIDES</b>	Hours:30
<b>Course Code</b> <b>21VBOI01</b>		Internal 50

#### UNIT - I

Introduction, overview of plant diseases, Definitions, classification of Bio pesticides - Microbial pesticides, Biochemical pesticides, Insect Pheromones, Plant-Based Extracts and Essential Oils. GM plants, Major advantages of bio pesticides, Status of bio pesticide use in India. Essential characteristics of effective biocontrol agents

#### Unit II :

Mass cultivation of biopesticides, their mode of action and applications, bacterial biopesticide –*Bacillus thuringiensis*, Fungal biopesticide -*Trichoderma viride*, *Beauveria bassiana*, Viral biopesticide- Nuclear polyhedrosis virus (NPV).

#### UNIT – III

Rearing of *Trichogramma* spp (Parasitoid), Sex pheromone traps of *Helicoverpa armigera* and *Spodoptera litura*, Neem based products as biopesticides, Ladybird beetle (*Cryptolaemus montrouzieri*) as biocontrol agent. Basic requirements for establishment of Biopesticide units, Regulatory measures and market potential of biopesticides.

#### Reference books:

1. Burges, H.D. and Hussey, N.W. (1971). *Microbial Control of Insects and mites*. Academic Press, New York.
  2. Burges, H.D. *Formulation of microbial pesticides* – Kluwersep, ACB, Dordrecht-ISBN. 0412 625 202.
  3. Coppel H.C. and J.W. Martin. (1977). *Biological control of insect pest suppression*. Springail.
- De Bach P. 1964. *Biological control of Insect Pest and Weeds* Chapman and Hall, New York



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### **B.Sc. Costume Design and Fashion Inter Departmental Value Added Course (2020 -21 onwards)**

#### **SURFACE ORNAMENTATION - 19VCFI01**

**Total hours: 30**

#### **COURSE OUTCOMES**

On completion of the course, students will be able to

- acquire knowledge and skills about the basic embroidery stitches.
- develop designs using various stitches.
- create free hand designs with suitable embroidery stitches.

#### **UNIT – I**

Outline stitches – stem, blanket and lazy daisy with its stitching procedure.

#### **UNIT - II**

Knotted stitches – french knot, bullion knot and double knot with its stitching procedure.

#### **UNIT - III**

Filling stitches – long and short, satin and herring bone with its stitching procedure.

#### **REFERENCES:**

1. J. & P Coats, (1967). *100 embroidery stitches (anchor embroidery stitches series)*, India: coats sewing group.
2. Jeanne Schnitzler/ Ginny Ross, “*New dimensions in needle work*”, Prentice-hall, INC., Englewood cliffs, New Jersey.
3. J. Anchor, *Needle ‘n’ thread*, magazine.
4. Mirudhula Nagarajan, (2003). *Embroidery*, Chennai: Anandh Vikadan publications.
5. <http://www.embroidery.rocksea.org/> - outline stitches.
6. <https://sewguide.com/embroidery-filling-stitches/> - filling stitches.



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### VALUE ADDED COURSE

(2020 - 21 onwards)

#### INTERDEPARTMENTAL COURSE

Value Added Course	<b>APPLICATIONS OF INTERNET</b>	Total Hours: 30
Course Code: 20VCSI01		Internal - 50

#### COURSE OUTCOMES

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

- understand the relevance of Internet in day-to-day life.
- use Internet for personal purposes.
- use Internet for updating one's own and other's information in Government portals.

#### UNIT I

Basics of Internet: Introduction to Internet – History of Internet – e-Mail address- Creation of e-Mail ID – send and receive mails – Search Engines – Search and download e-Books – Google Drive – Google Classroom (10 Hours)

#### UNIT II

Bus, Railway and Airline Reservation -Online course registration - MOOC courses – youtube video lectures –BLOG creation (10 Hours)

#### UNIT III

Government ID card updating- Aadhaar, PAN updating, Online Shopping – TNEB bill payment

(10 Hours)

### TEXT BOOK

Study Material prepared by Faculty of Computer Science.



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VIRUDHUNAGAR - 626 001

### SYLLABUS

### INTERDEPARTMENTAL COURSE II

(2020-21 onwards)

VALUE ADDED	VECTOR GRAPHICAL DESIGN	Total Hours : 30
Course Code 19VCSI02		Internal - 50

### COURSE OUTCOMES

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

- understand the various shapes of drawing tools.
- manipulate text and images.
- design logos, brochures and visiting cards .

### UNIT I

**CorelDraw Basics:** Getting started with CorelDraw – Creating a new File – The CorelDraw Screen – Property bar – Drawing basic geometric figures – Drawing Polygon – Saving a File – Closing a File – Opening and Exiting CorelDraw Views – The View Managers.

(8 Hours)

### UNIT II

**Drawing and Selecting:** Getting familiar with the toolbox – Getting started with the Project: Selecting an Object – Resizing – Moving – Changing the Shape – Combining two Objects – Skewing – Drawing a Polygon – Welding the Object – Blending two Objects – Drawing a Curved Line – Drawing Straight Lines – Continuing a Line – Changing the View Mode – The Artistic Media tool – Rotating a Object – Grouping Objects – The Fill tool Fly Out – Filling an Object With

a single color – Artistic Media tool in Spray Mode – Adding effects to Objects. (12 Hours)

### UNIT III

**Working with Text:** The Text tool – Getting started with Book Cover – Converting from one Text Type to another – Formatting Text – The Text Editor.

**Working with Images:** Bitmap and Vector Images – Importing Images – Resizing – Rotating and Skewing Images – Cropping an Image.

(10 Hours)

### TEXT BOOK

Vikas Gupta. (2007). *Comdex DTP Course Kit*, India: Dream Tech Publisher, New Delhi.

UNIT	PAGES
I	217 – 247
II	249 – 270, 272, 282 – 286
III	287 – 324

### REFERENCE BOOKS

1. Kalpesh Patel. (2012). *Corel Draw X*, Computer World Publication, 2<sup>nd</sup> Edition.
2. Satish Jain, Geetha Iyer M. (2008). *Corel Draw Graphics Suite X3 (CorelDRAW Version 13)*, India: BPB Publications New Delhi.
3. [http://gtu.ge/arch/faculty/multimedia/resources/2\\_corel/languages/en/help/coreldraw%20graphics%20suite%20x3.pdf](http://gtu.ge/arch/faculty/multimedia/resources/2_corel/languages/en/help/coreldraw%20graphics%20suite%20x3.pdf)



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### SYLLABUS INTER DEPARTMENTAL COURSE

Value Added Course	<b>WEB DESIGNING USING HTML</b>	Total Hours: 30
Course Code: 21VITI01		Internal - 50

#### COURSE OUTCOMES

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

- understand HTML commands for formatting a text
- establish HTML tools for Internet programming.
- design Tables and Links for HTML Documents.

#### 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. **Linking Documents:** Links – Images As Hyperlinks – **Lists:** Types of Lists. **Adding Graphics to HTML Documents:** Using the BORDER Attribute – Using the WIDTH and HEIGHT Attribute – Using the ALIGN Attribute – Using the ALT Attribute. **Tables:** Introduction

– Using the WIDTH and BORDER Attribute – Using the CELLPADDING Attribute – Using the CELLSPACING Attribute – Using the BGCOLOR Attribute – Using the COLSPAN and ROWSPAN Attributes. (7 Hours)

#### UNIT II:

1. Write HTML Program To Design Your Class Time Table

2. Write HTML Program To Design Railway Time Table.
3. Write HTML Program To Design Menu card by using Ordered List.
4. Write HTML Program To Design Menu card by using Un Ordered List.
5. Write HTML Program To display courses in our college by using nested list.

(11 Hours)

**UNIT III:**

6. Write HTML Program To Create Website For The Courses In Our College
7. Write HTML Program To Create Website For Zoo.
8. Write HTML Program To Design A Website For Indian Tourism Using Image Map.
9. Design a web page to add Graphics Documents using HTML.
10. Design a web page to frame multiple choice questions using HTML Lists.

(12 Hours)



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### VALUE ADDED COURSE

(2020 - 21 onwards)

B.C.A.

### INTERDEPARTMENTAL COURSE

<b>Course Code:</b> <b>19VCAI01</b>	<b>e-Services</b>	Duration : 30 Hours
		Internal: 50

### COURSE OUTCOMES

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

- get knowledge about the basics of Internet
- know Google applications
- make online payment.
- be familiar with use of the Internet for Employment Portals.
- acquire knowledge about online examinations.

### UNIT I

**Internet Basics:** WWW – Internet –Browsers –Installing web browsers - Google Applications:  
Maps – Earth – Google Docs – Google Spreadsheets – Forms.

### UNIT II

**e-Pay:** Net Banking –FundsTransfer – LIC Premium Payment – Prepaid Mobile, Data Card and  
DTH Recharge – Mobile Banking - Security issues in online payment.

### UNIT III



**Online Access:**TamilNadu Employment Exchange & Job Portal (Naukri): Registration – Renewal – Updation– Scholarship application through National Scholarship Portal – Online Examination registration – Demo for online examination.

## TEXT BOOK

Study Material prepared by the Faculty of Computer Applications.



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**VIRUDHUNAGAR - 626 001**

**Department of Commerce**

**UG Interdepartmental Value Added Course**

**(2022 - 2023 onwards)**

<b>Course Code: 22UVCOI01</b>	<b>Taxation</b>	<b>Total Hours: 30</b>
		<b>Internal: 100 Marks</b>

## COURSE OUTCOMES

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

- CO1 : State the basic concepts of Taxation and Residential Status.
- CO2 : categorize and compute the Taxable Income of an Individual under various heads assess the Income Tax Liability
- CO3 : understand the GST Working Mechanism and Input Tax Credit

## UNIT I

**Taxation under Constitution:** Objectives of Taxation – Income Tax Act 1961 – Definition – Income, Assessee, Assessment year – Previous year – Agricultural Income - Residential Status – Resident – Resident but not Ordinarily Resident – Non Resident.

(5 Hours)

## UNIT II

**Various heads of Income:** Income from Salary – Income from House Property – Profits and Gains from Business – Capital Gains- Income from Other Sources – Clubbing of

Income – Set Off and Carry Forward of Losses – Deduction from Gross Total Income .  
(15 Hours)

### **UNIT III**

**Goods and Services Tax:** Models of GST – Various GST Slabs – working mechanism of GST (CGST, SGST/UTGST, IGST) – Input Tax Credit – Eligibility for taking Input Tax Credit – Input Tax Credit Matching – Various GST Return (GSTR) forms – GSTN Portal.

(10 Hours)

### **TEXT BOOKS**

1. Mehrotra, H.C., & Goyal. (Current Assessment Year). Income Tax Law and Accounts. New Delhi: Sahitya Bhawan Publishers.
2. Hariharan, N. Income Tax Law and Practice, (Current Assessment Year), Chennai : Vijay Nicole Imprints

### **REFERENCE BOOKS**

1. Vinod, Singhania, K. (Current Assessment Year). *Students Guide to Income Tax*. New Delhi: Taxmann Publications Private Ltd.
2. Gaur, V.P., & Narang, D.B. (Current Assessment Year). *Income Tax Law and Practice*. New Delhi: Kalyani Publishers.



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### VALUE ADDED COURSE Inter - Departmental Course Department of Commerce (Self)

Course Code: <b>20VCO021</b>	<b>ONLINE PAYMENT</b>	Duration : 30 Hours Internal: 50
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#### Course outcomes:

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

- know about online payment system and understand the security alerts
- get knowledge about various modes of online payment
- understand the procedure for online shopping
- have a practical exposure to different types of ticket reservation and online shopping

#### Unit I

Online Payment Systems – Meaning – Advantages and Disadvantages of Online Payment – Security Efforts. (10 Hours)

#### Unit II

Online Payment Option – Credit Cards – Smart Cards – Digital Cash – Electronic Cheques – Steps to make online payment. (10 Hours)

#### Unit III

Online Shopping – Meaning – Advantages and Disadvantages of Online Shopping – Procedure for Online Shopping. (10 Hours)

#### LAB EXERCISES

1. Online Railway Ticket Reservation
2. Online Airway Ticket Reservation
3. Online Ticket Booking (Theatre and Bus)
4. Online Shopping

5. Installation of different Online payment Apps
6. Payment for DTH Services
7. Payment for Electricity Bill
8. Payment for Mobile Recharge
9. Online Fund Transfer through NEFT and RTGS

Dr.C.Amirtha selvi  
**Head of the Department**

Dr.V.Sakthi devi  
**Course Designer**



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**VIRUDHUNAGAR - 626 001**

DEPARTMENT OF COMMERCE (COMPUTER APPLICATIONS) SF

VALUE ADDED PROGRAMME

**Title of the course: Prevention of Harassment at Workplace**

19VCOI05

INTER DEPARTMENTAL COURSE

**SYLLABUS**

**COURSE OUTCOMES:**

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

- distinguish what constitutes and what does not constitute sexual behaviour at workplace and find out several remedies to prevent such behaviour
- understand legal obligations of Employers, Employees and Members of Compliant Committee.
- run an organization in strict compliance with Prevention of Sexual Harassment at workplace Act, 2013.

**Unit 1: HARASSMENT**

Introduction - Sexual Harassment -Legal Definition of Sexual Harassment - Examples of behaviour that constituting and not constituting Sexual Harassment

(8 Hours)

**Unit 2: PREVENTION OF SEXUAL HARASSMENT AT WORKPLACE ACT, 2013**

History - Background -Salient features - Legal obligations of the employer -Legal obligations of the manager -Legal rights of the victim -Legal rights of the accused – Internal Complaint Committee

(12 Hours)

**Unit 3: PRACTICAL SESSION**

Penal Provisions and Case Laws

(10 Hours)

### TEXT BOOK

Study materials prepared by the course designer.

### REFERENCES

1. <http://www.iitbbs.ac.in/notice/sexual-harrassment-of-women-act-and-rules-2013.pdf>
2. <https://en.wikipedia.org/wiki/Harassment>



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**VIRUDHUNAGAR - 626 001**

**BBA**

**(2020-21 onwards)**

Semester VI	<b>ENHANCING MANAGERIAL SKILLS</b>	Hours: 30
<b>Interdepartmental Value Added Course</b>		Credits:
Course Code <b>20VBAI01</b>		Marks:  50

### COURSE OUTCOMES

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

CO1: discover managerial skills required for managers in a company. [K1]

CO2: observe managerial skills that create successful managers. [K2]

CO3: use your skills like leadership, emotional intelligence, financial, creative thinking, entrepreneurship to contribute efficiently in your role in an organization. [K3]

CO4: analyse the existing skill set of managers and identify areas of improvement. [K4]

CO5: suggest to management about enhancing the skills of all levels of managers. [K5]

### UNIT I: Managerial Skill

Leadership –Definition – Characteristics of a Good Leader – Time Management of a Good Leader – Emotional Intelligence – Definition – Factors influencing Emotional Intelligence – Benefits of High Emotional Intelligence – Effects of Poor Emotional Intelligence — Creative Thinking – Personal Finance. **(9 Hours)**

**UNIT II: Entrepreneurship Skills**

Women Entrepreneur – Opportunities for a Women Entrepreneur – Problems Faced by Women Entrepreneur – Strategies to Overcome the Problems – Workshop on Product development and Marketing the Product. **(9 Hours)**

### **UNIT III: Personality Development**

Confidence – Motivation – Communication – self Understanding –Attitude –

#### **Passion Management Games and Activities:**

Team Work – Planning – Organising – Staffing – Controlling – Decision Making.  
**(12 Hours)**

#### **REFERENCE BOOKS:**

1. Renu Bansal (2011), Team Building and Leadership, Wisdom Publications, New Delhi.
2. Dr. Khanka S.S (2012), Entrepreneurial Development, S. Chand Publishing., New Delhi.
3. Subbulakshmi V., Sujatha H Belgamkar (2005), Emotional Intelligence at Workplace, The ICFAIUniversity Press, Hyderabad