

**SRI DURGA MALLESWARA SIDDHARTHA MAHILA KALASALA, VIJAYAWADA- 10**  
(An Autonomous college in the jurisdiction of Krishna University : Machilipatnam)

<b>Skill courses</b>	<b>CLSCT01</b>	<b>2020-21</b>	
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**SEMESTER- II**

**ENVIRONMENTAL EDUCATION**  
**SKILL DEVELOPMENT**

**Unit 1: Environment and Natural Resources**

**06 Hrs.**

1. Multidisciplinary nature of environmental education; scope and importance.
2. Man as an integral product and part of the Nature.
3. A brief account of land, forest and water resources in India and their importance.
4. Biodiversity : Definition; importance of Biodiversity - ecological, consumptive, productive, social, ethical and moral, aesthetic, and option value.
5. Levels of Biodiversity: genetic, species and ecosystem diversity.

**Unit-2: Environmental degradation and impacts**

**10Hrs**

1. Human population growth and its impacts on environment; land use change, land degradation, soil erosion and desertification.
2. Use and over-exploitation of surface and ground water, construction of dams, floods, conflicts over water (within India).
3. Deforestation: Causes and effects due to expansion of agriculture, firewood, mining, forest fires and building of new habitats.
4. Non-renewable energy resources, their utilization and influences.
5. A brief account of air, water, soil and noise pollutions; Biological, industrial and solid wastes in urban areas. Human health and economic risks.
6. Green house effect - global warming; ocean acidification, ozone layer depletion, acid rains and impacts on human communities and agriculture.
7. Threats to biodiversity: Natural calamities, habitat destruction and fragmentation, over exploitation, hunting and poaching, introduction of exotic species, pollution, predator and pest control.

**Unit 3: Conservation of Environment**

**10 Hrs**

1. Concept of sustainability and sustainable development with judicious use of land, water and forest resources; afforestation.
2. Control measures for various types of pollution; use of renewable and alternate sources of energy.
3. Solid waste management: Control measures of urban and industrial waste.
4. Conservation of biodiversity: In-situ and ex-situ conservation of biodiversity.
5. Environment Laws: Environment Protection Act; Act; Wildlife Protection Act; Forest Conservation Act.
6. International agreements: Montreal and Kyoto protocols; Environmental movements:

Bishnois of Rajasthan, Chipko, Silent valley.

**Suggested text book :**

- ErachBarucha (2004) *Text book of Environmental Studies for Undergraduate courses* (Prepared for University Grants Commission) Universities Press.
- PurnimaSmarath (2018) *Environmental studies* Kalyani Publishers, Ludhiana

**Reference books :**

- Odum, E.P., Odum, H.T. & Andrews, J. (1971) *Fundamentals of Ecology*. Philadelphia: Saunders.
- Pepper, I.L., Gerba, C.P. &Brusseau, M.L. (2011). *Environmental and Pollution Science*. Academic Press.
- Raven, P.H., Hassenzahl, D.M. & Berg, L.R. (2012) *Environment. 8th edition*. John Wiley & Sons.
- Singh, J.S., Singh, S.P. and Gupta, S.R. (2014) *Ecology, Environmental Science and Conservation*. S. Chand Publishing, New Delhi.
- Sengupta, R. (2003) *Ecology and economics: An approach to sustainable development*. OUP.
- Wilson, E. O. (2006) *The Creation: An appeal to save life on earth*. New York: Norton.
- Groom, Martha J., Gary K. Meffe, and Carl Ronald Carroll (2006) *Principles of Conservation Biology*. Sunderland: Sinauer Associates,

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**SEMESTER- I**

**BASIC COMPUTER APPLICATIONS**

**Unit-I:** (08 hrs)

**Basics of Computers:** Definition of a Computer - Characteristics of computers, Applications of Computers – Block Diagram of a Digital Computer – I/O Devices, hardware, software human ware, application software, system software, Memories - Primary, Auxiliary and Cache Memory.

**MS Windows** – Desktop, Recycle bin, My Computer, Documents, Pictures, Music, Videos, Task Bar, Control Panel.

**Unit-II:** (08 hrs)

**MS-Word** : Features of MS-Word - MS-Word Window Components - Creating, Editing, Formatting and Printing of Documents – Headers and Footers – Insert/Draw Tables, Table Auto format – Page Borders and Shading – Inserting Symbols, Shapes, Word Art, Page Numbers, Mail Merge.

**Unit-III:** (10 hrs)

**MS-Excel** : Overview of Excel features – Creating a new worksheet, Selecting cells, Entering and editing Text, Numbers, Inserting Rows/Columns –Changing column widths and row heights, Formulae, Referencing cells , Changing font sizes and colors, Insertion of Charts, Auto fill, Sort.

**MS-PowerPoint:** Features of PowerPoint – Creating a Presentation - Inserting and Deleting Slides in a Presentation – Adding Clip Art/Pictures -Inserting Other Objects, Audio, Video - Resizing and scaling of an Object – Slide Transition – Custom Animation.

**REFERENCE BOOKS:**

1. Working in Microsoft Office – Ron Mansfield - TMH.
2. MS Office 2007 in a Nutshell –Sanjay Saxena – Vikas Publishing House.
3. Excel 2020 in easy steps-Michael Price – TMH publications

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<b>Skill courses</b>		<b>2020-21</b>	
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## **SEMESTER- II**

### **INDIAN CULTURE & SCIENCE**

#### **Unit – I: Unity in Diversity in India: (09 hrs)**

Coexistence of various religions since ancient times - Hinduism, Buddhism, Jainism and Atheism, and later Sikhism, Islam and Christianity

The Bhakti (Vishnavite and Saivaite) and Sufi Movements

The concepts of seela, karuna, kshama, maitri, vinaya, santhi and ahimsa Achievements in Literature, Music, Dance, Sculpture and Painting - Craftsmanship in cloth, wood, clay, metal and ornaments Cultural diversity, Monogamy, Family system, Important seasonal festivals

#### **Unit – II: Social Reforms and Modern Society: (09 hrs)**

Reforms by Basaveswara - Raja Rama Mohan Roy – Dayananda Saraswathi –Swamy Vivekananda – Mahatma Gandhi - B. R. Ambedkar - Reforms in Andhra by Vemana, Veerabrahmam, Gurajada, Veeresalingam and GurramJashua (only reforms in brief, biographies not needed)

Modern Society: Family unity, Community service, Social Harmony, Civic Sense, Gender Sensitivity, Equality, National Fervor

#### **Unit – III: Science and Technology: ((09 hrs)**

Objectivity and Scientific Temper – Education on Scientific lines (Bloom’s Taxonomy) - Online Education Developments in Industry, Agriculture, Medicine, Space, Alternate Energy, Communications, Media through ages

#### **Reference Books:**

1. History of India and Culture (Upto 1526 A.D), Telugu Academy
2. History of India and Culture (1526 A.D to 1964), Telugu Academy
3. Basham, A.L (ed), A Cultural History of India
4. Hana S. Noor Al-Deen&J.A.Hendricks, Social Media : Usage and Impact
5. Bipan Chandra, Aditya Mukherjee, Mridula Mukherjee, India After Independence
6. S.K.Thakur, ISRO: History and Acheivements
7. V. Ramakrishna, Social Reform Movement Andhra, Vikas Publications

Skill courses	CLSCT01	2020-21	
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**SEMESTER- II**

**ENVIRONMENTAL EDUCATION**  
**SKILL DEVELOPMENT**

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**06 Hrs.**

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**Unit-2: Environmental degradation and impacts**

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- Pepper, I.L., Gerba, C.P. & Brusseau, M.L. (2011). *Environmental and Pollution Science*. Academic Press.
- Raven, P.H., Hassenzahl, D.M. & Berg, L.R. (2012) *Environment. 8th edition*. John Wiley & Sons.
- Singh, J.S., Singh, S.P. and Gupta, S.R. (2014) *Ecology, Environmental Science and Conservation*. S. Chand Publishing, New Delhi.
- Sengupta, R. (2003) *Ecology and economics: An approach to sustainable development*. OUP.
- Wilson, E. O. (2006) *The Creation: An appeal to save life on earth*. New York: Norton.
- Groom, Martha J., Gary K. Meffe, and Carl Ronald Carroll (2006) *Principles of Conservation Biology*. Sunderland: Sinauer Associates,

<b>Skill Development Courses</b>	<b>SDCHIST01</b>	<b>2020-21</b>	<b>BA,</b>
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**SEMESTER- III**

**Tourism Guidance**

**Unit I:** (06 hrs)

Tourism – What is Tourism - Characteristics of Tourist Places – Guidance in Tourism  
- Meaning of Guidance – Types of Tour Guidance - Government/Department  
Regulations

**Unit II:** (10 hrs)

Types of Guides – Characteristics of a Guide - Duties and Responsibilities of a Guide  
- The Guiding Techniques –Guide’s personality- Training Institutions – Licence. Leadership  
and Social Skills - Presentation and Communication Skills - Working with different age  
and linguistic groups - Working under difficult circumstances – Precautions at the  
site -Relationship with Fellow Guides and Officials.

**Unit III:** (10 hrs)

Guest Relationship Management- Personal and Official - Arrangements to Tourists –  
Coordinating transport - VISA/Passport -Accident/Death-Handling Guests with Special  
Needs/ Different Abilities –Additional skills required for Special/Adventure Tours -  
Knowledge of Local Security and Route Chart – PersonalHygiene and Grooming - Checklist  
- Code of Conduct

**Co-curricular Activities Suggested:** (04 hrs)

1. Assignments, Group discussion, Quiz etc.
2. Invited lecture/training by local tourism operators/expert/guides
3. Visit to local Tourism Department office and a tourist service office
4. Organisation of college level short-duration tours to local tourist sites.

**Reference Books:**

1. Jagmohan Negi (2006); Travel Agency and Tour Operations, Kanishka Publishers, New Delhi
2. Mohinder Chand (2009); Travel Agency and Tour Operations: An Introductory Text, Anmol Publications Pvt. Limited, New
3. Pat Yale(1995); Business of Tour Operations, Longman Scientific & Technical, New Delhi
4. Websites on Tourism guidance.

<b>Skill Development Courses</b>	<b>SDCPOLT01</b>	<b>2020-21</b>	<b>BA</b>
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**SEMESTER- I**

## **PUBLIC RELATIONS**

Unit – I	06 hours
Public Relations-Meaning, Definition, Nature and Scope, Historical Background, Technological and Media Revolution and Role in Business, Government, Politics, NGOs and Industry.	
Unit – II	10 hours
Concepts of Public Relations-Press, Publicity, Lobbying, Propaganda, Advertising, Sales Promotion and Corporate Marketing Services, Tools of Public Relations- Press Conferences, Meets, Press Releases, Announcements, Webcasts	
Unit – III	10 hours
Public Relations and Mass Media, Present and future of Public Relations in India, Ethics of Public Relations and Social Responsibility, Public Relations and Writing- Printed Literature, Newsletters, Opinion papers and Blogs	

### **Co-curricular Activities Suggested: (04 Hrs)**

1. Invited lecture by local field expert/eminant personality on Public Relations
2. Visit to Press
3. Opinion Survey, Media Survey and Feedback
4. Case Studies
5. Organising mock press conferences, exhibitions
6. Assignments, Group discussion, Quiz etc.

### **TEXT BOOK:**

1. S.M.Sardana, Public Relations: Theory and Practice.

### **Reference Books:**

1. Brown, Rob, Public Relations and the Social Web, Kogan Page India, New Delhi, 2010.
2. Cutlipscottetal, Effective Public Relations, London, 1995.
3. Black Sam, Practical Public Relations, Universal Publishers, 1994.
4. J.V.Vilanilam, Public Relations in India: New Tasks and Responsibilities, SAGE Publications India Pvt Ltd, New Delhi2011.
5. Websites on Public relations.



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<b>Skill Development Courses</b>	<b>SDCCOMT02</b>	<b>2020-21</b>	<b>B.COM</b>
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**SEMESTER- I**

**OFFICE SECRETARYSHIP**

**Syllabus**

**UNIT I:**

**06 hrs**

Introduction – Organisational structure of a small and medium organization – Types of offices - Kinds of secretaries - The scope of office secretaryship

**UNIT II:**

**10 hrs**

The role of an office secretary -Duties and responsibilities- Usage of different devices - Flowchart and office manuals – Coordinating different wings of an office/organisaton – Arranging common meetings - Operations of banking and financial services - travel and hospitality management services

**UNIT III:**

**10hrs**

Office procedures – Filing– Circulating files - Preparation of notes, circulars, agenda and minutes of meetings – Issue of press notes - Maintenance of files and records - Inventory, office, human resources, financial and confidential - maintaining public relations.

**Co curricular Activities:**

**04 hrs**

1. Visit various organizations (Hospitals, Hotels, Hospitality centers)
2. Preparation of appointment letters, dismissal letters, memos, Issue of appreciation/ motivation letters,
3. Releasing of Press notes, notices and circulars
4. Arranging invited lectures from office executives, auditors and managers
5. Assignments, Group discussion, Quiz etc.

**Reference books:**

1. Rapidex Professional course - PustalMahal Group

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**SEMESTER- I**

**ELECTRICAL APPLIANCES**

**UNIT-I**

**(6 hrs)**

Voltage, Current, Resistance, Capacitance, Inductance, Electrical conductors and Insulators, Ohm's law, Series and parallel combinations of resistors, Galvanometer, Ammeter, Voltmeter, Multimeter, Transformers, Electrical energy, Power, Kilowatt hour (kWh), consumption of electrical power

**UNIT-II**

**(10 hrs)**

Direct current and alternating current, RMS and peak values, Power factor, Single phase and three phase connections , Basics of House wiring , Star and delta connection , Electric shock, First aid for electric shock, Overloading , Earthing and its necessity, Short circuiting , Fuses , MCB , ELCB, Insulation, Inverter, UPS

**UNIT-III**

**(10 hrs)**

Principles of working, parts and servicing of Electric fan, Electric Iron box, Water heater; Induction heater, Microwave oven; Refrigerator, Concept of illumination, Electric bulbs, CFL, LED lights, Energy efficiency in electrical appliances, IS codes & IE codes.

**TEXT BOOKS:**

1. A Text book on Electrical Technology, B.L.Theraja, S.Chand& Co.,
2. A Text book on Electrical Technology, A.K.Theraja.

**Reference Books:**

3. Performance and design of AC machines, M.G.Say, ELBSEdn.,
4. Handbook of Repair & Maintenance of domestic electronics appliances; BPB Publications
5. Consumer Electronics, S.P.Bali, Pearson
6. Domestic Appliances Servicing, K.P.Anwer, Scholar Institute Publications

<b>Skill Development Courses</b>	<b>SDCPHYP02</b>	<b>2020-21</b>	
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**SEMESTER- II**

**SOLAR ENERGY**

*Total 30 hrs (02h/wk),*

*02 Credits & Max Marks: 50*

**Learning Outcomes:**

*After successful completion of the course, students will be able to:*

- 1. Acquire knowledge on solar radiation principles with respect to solar energy estimation.*
- 2. Get familiarized with various collecting techniques of solar energy and its storage*
- 3. Learn the solar photovoltaic technology principles and different types of solar cells for energy conversion and different photovoltaic applications.*
- 4. Understand the working principles of several solar appliances like Solar cookers, Solar hot water systems, Solar dryers, Solar Distillation, Solar greenhouses*

**UNIT-I – Solar Radiation:**

**(6 hrs)**

Sun as a source of energy, Solar radiation, Solar radiation at the Earth's surface, Measurement of Solar radiation-Pyroheliometer, Pyranometer, Sunshine recorder, Prediction of available solar radiation, Solar energy-Importance, Storage of solar energy, Solar pond

**UNIT-II – Solar Thermal Systems:**

**(10 hrs)**

Principle of conversion of solar radiation into heat, Collectors used for solar thermal conversion: Flat plate collectors and Concentrating collectors, Solar Thermal Power Plant, Solar cookers, Solar hot water systems, Solar dryers, Solar Distillation, Solar greenhouses.

**UNIT-III – Solar Photovoltaic Systems:**

**(10 hrs)**

Conversion of Solar energy into Electricity - Photovoltaic Effect, Solar photovoltaic cell and its working principle, Different types of Solar cells, Series and parallel connections, Photovoltaic applications: Battery chargers, domestic lighting, street lighting and water pumping

**Co-curricular Activities (Hands on Exercises): (04 hrs)**

*[Any four of the following may be taken up]*

- 1. Plot sun chart and locate the sun at your location for a given time of the day.*
- 2. Analyse shadow effect on incident solar radiation and find out contributors.*
- 3. Connect solar panels in series & parallel and measure voltage and current.*
- 4. Measure intensity of solar radiation using Pyranometer and radiometers.*
- 5. Construct a solar lantern using Solar PV panel (15W)*
- 6. Assemble solar cooker*
- 7. Designing and constructing photovoltaic system for a domestic house requiring 5kVA power*
- 8. Assignments/Model Exam.*

**TEXT BOOKS:**

- 1. Solar Energy Utilization, G. D. Rai, Khanna Publishers*
- 2. Solar Energy- Fundamentals, design, modeling & applications, G.N. Tiwari, Narosa Pub., 2005.*
- 3. Solar Energy-Principles of thermal energy collection & storage, S.P. Sukhatme, Tata Mc- Graw Hill Publishers, 1999.*

**Reference Books:**

- 4. Solar Photovoltaics- Fundamentals, technologies and applications, Chetan Singh Solanki, PHI Learning Pvt. Ltd.,*
- 5. Science and Technology of Photovoltaics, P. Jayarama Reddy, BS Publications, 2004*



<b>Skill Development Courses</b>	<b>SDCBOTP01</b>	<b>2020-21</b>	<b>BZC</b>
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## **PLANT NURSERY MANAGEMENT**

### **Unit-1 :Introduction to plant nursery** **06 Hrs.**

1. Plant nursery: Definition, importance.
2. Different types of nurseries –on the basis of duration, plants produced, structure used.
3. Basic facilities for a nursery; layout and components of a good nursery.
4. Plant propagation structures in brief.
5. Bureau of Indian Standards (BIS-2008) related to nursery.

### **Unit- 2 :Necessities for nursery** **09 Hrs.**

1. Nursery beds – types and precautions to be taken during preparation.
2. Growing media, nursery tools and implements, and containers for plant nursery, in brief.
3. Seeds and other vegetative material used to raise nursery in brief.
4. Outlines of vegetative propagation techniques to produce planting material.
5. Sowing methods of seeds and planting material.

### **Unit-3 :Management of nursery** **09 Hrs.**

1. Seasonal activities and routine operations in a nursery.
2. Nursery management – watering, weeding and nutrients; pests and diseases.
3. Common possible errors in nursery activities.
4. Economics of nursery development, pricing and record maintenance.
5. Online nursery information and sales systems.

### **PRACTICAL SYLLABUS** **6 Hours**

1. Demonstration of Nursery bed making of propagation media.
2. Demonstration of preparation of media for nursery
3. Hands on training on vegetative propagation techniques
4. Hands on training on sowing methods of seeds and other material
5. visit to an agriculture/horticulture /forest nursery.
6. case study on establishment and success of a plant nursery.

#### **Suggested text books/reference books :**

1. Ratha Krishnan, M., et.al. (2014) *Plant nursery management : Principles and practices*, Central Arid Zone Research Institute (ICAR), Jodhpur, Rajasthan
2. Kumar, N., (1997) *Introduction to Horticulture*, Rajalakshmi Publications, Nagercoil.
3. Kumar Mishra, K., N.K. Mishra and Satish Chand (1994) *Plant Propagation*, John Wiley & Sons, New Jersey.

MICROBIOLOGY	SDCMICP0 1	2020-2021	B.Sc. ,FMB,FMC
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**SEMESTER- I**

TOTALHOURS: 30

**DAIRY MICROBIOLOGY**

**CREDITS: 2**

**UNIT - 1**

**8 hours**

**Hygienic Milk and Classification Of Dairy Microorganisms**

Introduction –Composition of milk and microorganisms present in milk, Significance of dairy Microbiology, Sources of Contamination of Milk, Hygienic Milk production- Pasteurization, Types of Pasteurization, Factors affecting Pasteurization, Phosphatase test

**UNIT 2**

**Microbial Spoilage Of Milk and Milk Borne Diseases**

**3 hours**

Role of Microbes in spoilage of Milk, Characteristics of spoilage and Dairy Microorganisms, Characteristics of dairy associated fungi and bacteriophages, Milk borne diseases

**UNIT 3**

**Microorganisms Associated With Milk and Microbiological Methods of Milk Testing**

**9 hours**

Microorganisms associated with raw milk and their significance, Role of Psychotrophs in milk, Effect of processing on Microorganisms in milk. Qualitative and Quantitative methods of milk testing, Dye reduction test, Direct microscopic count (DMC), Standard plate Count (SPC), Coliform counts in Milk, Methods of Enumeration of other groups of Bacteria, Enumeration of yeasts and molds in milk

**TEXT BOOK**

1. Food Microbiology, 5th Edition : [William C. Frazier](#)

**REFERENCE:**

1. Dairy Microbiology Handbook: The Microbiology of Milk and Milk Products, 3rd Edition, [Richard K. Robinson](#)
2. Modern Food Microbiology : James J
4. Outlines of Dairy Technology : [De Sukumar](#)

<b>Skill Development Courses</b>	<b>SDCELEP01</b>	<b>2020-21</b>	<b>MECS</b>
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**SEMESTER- I**

**ELECTRONIC SYSTEM DESIGN&MANUFACTURE (ESDM) WITH PCB**

*02 Credits & Max Marks :50*

**UNIT-I**

**Basic electronic components in production:-**Electrical & Electronic components: different active and passive components and their symbolic representation and notations ,electrical & electronic circuit representation, surface mount Technology ,Need for SMD, surface mount Semiconductor packages.

**UNIT-II**

**a)Basics of printed circuit boards:** Evolution of PCB's, components of PCB's, Characteristics of PCB's, Types of PCB's, IPC standards of PCB's , terminology in PCB's.

**b) PCB Design Techniques:** Layout planning & design – Block diagram, schematic diagram, General PCB design considerations, Artwork.

**UNIT-III**

**PCB Fabrication:** Image transfer techniques, planning process, etching process, conformal coating, drilling and solder mask.

**UNIT-IV**

**Production method:**

a) Soldering Tools-Soldering iron, solder, cutter, flux, tweezer & Cleaning sponge.

b) Soldering process: Components forming, Mounting, Soldering, Cleaning protection coating, different soldering techniques, De-soldering, cleaning and remounting in the components.

**UNIT-V**

**Equipment harness and crimping:**

a) Wire Hardness and crimping: Different types of wire and cables, different terminations.

b) Testing Methods: Module testing's, Function testing, routine testing, environmental testing, Reliability testing.

**Text Books:**

1. Printed Circuit Boards (R S Khandpur)
2. Hand book of printed circuit manufacturing (Raymond H.Clark)

**Reference:**

1. Printed circuit board design & technology walter Cbossnart(TATAMCGrawhill)
  1. Crimping of Wires and Cables
  2. Module and Function testing

<b>Skill Development Courses</b>	<b>SDCENGT01</b>	<b>2020-21</b>	<b>B.SC HONS</b>
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**SEMESTER- II**

**JOURNALISTIC REPORTING**

**Unit-I:** 06 Hrs

Introduction to Journalism-Nature, Growth and Development in post independence era -Print Media, Mass Media and Electronic Media, Press as a Fourth Estate-Role of Press in Democracy.

**Unit-II:** 10 Hrs

Concept of News-News Values-Sources of News - News gathering ways: Press Conferences, Press Releases, Events, Meets, Interviewing-Types of Interviews and Interviewing Techniques- Methods of News Writing: Leads, News Stories and Body Development.

**Unit- III** 10 Hrs

Reporting-Kinds of Reporting-Objectives, Interpretative, Investigative, Legal, Developmental, Political, Sports, Crime, Economic, Commercial, Disaster, Technical and Scientific Reporting-Writing Special features: Photo features, Human interest features, Profiles, Column Writing, Writing for Radio and Television-Values and Ethics of Journalism.

**ReferenceBooks:**

1. Mencher Melvin, News Reporting and Writing, 1997, Columbia University Press.
2. Mazumdar Aurobindo, Indian Press and Freedom Struggle, 1993, Orient Longman.
3. Barun Roy, Beginners Guide to Journalism and Mass Communication, V&S Publishers, New Delhi.
4. Kamath M.V, Professional Journalism,1983,Vikas Publishers, New Delhi.
5. Carole Fleming, Emma Hemmingway, Gillian Moore and Dave Welford, 2006,SAGE Publications India Pvt.Ltd, New Delhi
6. Websites on Journalistic Reporting.



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<b>Skill Development Courses</b>	<b>SDCENGT03</b>	<b>2020-21</b>	<b>MSCS,MPCS,MECS,MSCA,MCCS,HONS,MSDS, MPC,</b>
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### **SEMESTER- III**

#### **BUSINESS COMMUNICATION**

Total 30 hrs (02hrs/wk), 02 Credits, Max 50 marks

##### UNIT I : 06hrs

Introduction and Importance of communication an overview - meaning and process of communication - organizational communication and its barriers.

##### UNIT II: 10hrs

Types of Business Communications –Categories, methods and formats - Business vocabulary - Business idioms and collocations – Organisational Hierarchy - Various levels of communication in an organization – Top-down, Bottom-up and Horizontal-Business reports, presentations– Online communications.

##### UNIT III: 10hrs

Receiving business communications -Filing and processing -Sending replies. Routine cycle of communications – Writing Communications - Characteristics of a good business communication

-Preparation of business meeting agenda – agenda notes - minutes –circulation of minutes – Presentations of communication using various methods.

##### **Reference books:**

1. Chaturvedi. P.D.Chaturvedi.M - Business Communication concepts, Cases and applications - Pearsons Education
2. Kaul Asha - Effective Business Communication - PHI Learning pvt Ltd
3. [www.swayam.gov.in](http://www.swayam.gov.in)
4. Websites on business communication

<b>Skill Development Courses</b>	<b>SDCCOMT03</b>	<b>2020-21</b>	<b>B.COM</b>
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**SEMESTER:II**

**ONLINE BUSINESS**

**UNIT I Introduction to Online-business** **06 Hours**

- 1.1 Characteristics of Online Business
- 1.2 Advantages of Online Business
- 1.3 Challenges in Online Business
- 1.4 Differences between off-line business, e-commerce and Online Business

**UNIT II Online-business Strategies** **11 Hours**

- 2.1 Demand aggregation Strategies in Online Business
- 2.2 JIT strategy (An Overview)
- 2.3 E-Logistics & Supply Chain Management (An Overview)
- 2.4 E-Customer Relationship management (An Overview)

**UNIT III Administering Online Business** **10 Hours**

- 3.1 Steps in Electronic Payment
- 3.2 E-Security through Cryptography
- 3.3 Online Business models
- 3.4 Fulfillment models in Online business

**Reference Books:**

- 1. David Whitely, "E-Commerce", Tata McGraw Hill, 2000
- 2. E Business by Jonathan Reynolds from Oxford University Press

<b>Skill Development Courses</b>	<b>SDCCOMT04</b>	<b>2020-21</b>	<b>B.COM</b>
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**SEMESTER:II**

**ADVERTISING**

**UNIT I Introduction to Advertising** **07 Hours**

- 1.1 Functions of Advertising
- 1.2 Types of advertising
- 1.3 Advertising Media
- 1.4 Advertising campaign planning process

**UNIT II Advertisement Designing** **10 Hours**

- 2.1 Factors determining the design of an Advertising Message
- 2.2 Elements in Advertising Message structure
- 2.3 Role of AAI (Advertising Agencies Association of India)
- 2.4 Role of ASCI (Advertising Standard Council of India)

**UNIT III Functioning of an Advertising agency** **10 Hours**

- 3.1 Functions of an Advertising agency
- 3.2 Organizational structure of an Advertising agency
- 3.3 Process for Identifying Target groups
- 3.4 Prospects for an Advertising agency in India

**Reference Books:**

1. Bhatia. K. Tej - Advertising and Marketing in Rural India - Mc Millan India
2. Ghosal Subhash - Making of Advertising - Mc Millan India
3. JethWaney Jaishri & Jain Shruti - Advertising Management - Oxford university Press  
Publications of Indian Institute of Mass Communications.

<b>Skill Development Courses</b>	<b>SDCPHYP02</b>	<b>2020-21</b>	<b>MPCS,MPC</b>
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**SEMESTER- II**

**SOLAR ENERGY**

*Total 30 hrs (02h/wk),*

*02 Credits & Max Marks: 50*

**UNIT-I – Solar Radiation: (6 hrs)**

Sun as a source of energy, Solar radiation, Solar radiation at the Earth's surface, Measurement of Solar radiation-Pyroheliometer, Pyranometer, Sunshine recorder, Prediction of available solar radiation, Solar energy-Importance, Storage of solar energy, Solar pond

**UNIT-II – Solar Thermal Systems: (10 hrs)**

Principle of conversion of solar radiation into heat, Collectors used for solar thermal conversion: Flat plate collectors and Concentrating collectors, Solar Thermal Power Plant, Solar cookers, Solar hot water systems, Solar dryers, Solar Distillation, Solar greenhouses.

**UNIT-III – Solar Photovoltaic Systems: (10 hrs)**

Conversion of Solar energy into Electricity - Photovoltaic Effect, Solar photovoltaic cell and its working principle, Different types of Solar cells, Series and parallel connections, Photovoltaic applications: Battery chargers, domestic lighting, street lighting and water pumping

**TEXT BOOKS:**

1. Solar Energy Utilization, G. D. Rai, Khanna Publishers
2. Solar Energy- Fundamentals, design, modeling & applications, G.N. Tiwari, Narosa Pub., 2005.
3. Solar Energy-Principles of thermal energy collection & storage, S.P. Sukhatme, Tata Mc- Graw Hill Publishers, 1999.

**Reference Books:**

4. Solar Photovoltaics- Fundamentals, technologies and applications, Chetan Singh Solanki, PHI Learning Pvt. Ltd.,
5. Science and Technology of Photovoltaics, P. Jayarama Reddy, BS Publications, 2004.

<b>Skill Development Courses</b>	<b>SDCFSTP01</b>	<b>2020-21</b>	<b>FMB,FMC</b>
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**SEMESTER- II**

**FRUITS AND VEGETABLES PRESERVATION**

**Unit – 1 : Introduction to fruits and vegetables**

06 Hrs.

1. Fruits: Definition, elementary knowledge on types of fruits (fleshy and dry) with local /common examples.
2. Vegetables: Definition, elementary knowledge on types of vegetables (root, leafy, stem, flower and fruit) with local/ common examples.
3. Importance of fruits and vegetables in human nutrition.
4. Concept of perishable plant products – maturation and spoilage, shelf life; preservation – definition and need for preservation of fruits and vegetables.

**Unit – 2 :Preservation of Fruit**

09 Hrs.

1. Fruits – ripening and biological aging; storage and preservation concerns.
2. Preservation of fresh fruits at room temperature and in cold storage.
3. Fruit preservation at room temperature as juices, squashes and syrups.
4. Preservation of fruits by application of heat; making of fruit products (jams, jellies and fruit slices in processing factories).
5. Preservation by dehydration (Eg. banana chips), application of sugar (Eg. mango candy), application of salt (pickling).
6. Fruit preservation by freezing – storage at the lowest temperatures.

**Unit – 3 :Preservation of vegetables**

09 Hrs.

1. Vegetables – losses after harvesting and causes; problems in handling and storage.
2. Modern methods of packaging and storage to reduce losses.
3. Trimming of vegetables and packing in cartons; dehydration technique -factory processing.
4. Making of vegetable products (flakes/chips of potato and onion; garlic powder).
5. Frozen vegetables – Carrots, Cauliflower, Okra and Spinach.
6. Preservation of sliced vegetables in factories by canning and bottling.
1. .

**Suggested text books/reference books :**

1. Giridharilal, G. S. Siddappa and G.L.Tandon(2007) *Preservation of Fruits and Vegetables*, Indian Council of Agri. Res., New Delhi
2. Srivastava, R.P., and Sanjeev Kumar (2019) *Fruit and Vegetable Preservation : Principles and Practices*, CBS Publishers & Distributors Pvt., Ltd., New Delhi
3. Thompson, A.K. (1995) *Post Harvest Technology of Fruits and Vegetables*. Blackwell Sci.,U.K.
4. Verma, L.R. and V.K. Joshi (2000) *Post Harvest Technology of Fruits and Vegetables*. Indus Publ., New Delhi

<b>Skill Development Courses</b>	<b>SDCCHEP01</b>	<b>2020-21</b>	<b>BZC,AZC,FMC,FMB,MPC,MCCS</b>
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## **SEMESTER- II**

### **FOOD ADULTERATION**

*Total 30 hrs (02h/wk),*

*02 Credits & Max Marks: 50*

#### **UNIT-I – Common Foods and Adulteration: (07hrs)**

Common Foods subjected to Adulteration - Adulteration – Definition – Types; Poisonous substances, Foreign matter, Cheap substitutes, Spoiled parts. Adulteration through Food Additives – Intentional and incidental. General Impact on Human Health.

#### **UNIT-II –: Adulteration of Common Foods and Methods of Detection: (10hrs)**

Means of Adulteration Methods of Detection Adulterants in the following Foods; Milk, Oil, Grain, Sugar, Spices and condiments, Processed food, Fruits and vegetables. Additives and Sweetening agents (at least three methods of detection for each food item).

#### **UNIT-III –:Present Laws and Procedures on Adulteration: (08hrs)**

Highlights of Food Safety and Standards Act 2006 (FSSA) –Food Safety and Standards Authority of India–Rules and Procedures of Local Authorities.

Role of voluntary agencies such as, Agmark, I.S.I. Quality control laboratories of companies, Private testing laboratories, Quality control laboratories of consumer co-operatives.

Consumer education, Consumer's problems rights and responsibilities, COPRA 2019 - Offenses and Penalties – Procedures to Complain – Compensation to Victims.

#### **Reference Books and Websites:**

1. A first course in Food Analysis – A.Y. Sathe, New Age International (P) Ltd., 1999
2. Food Safety, case studies – Ramesh. V. Bhat, NIN, 1992
3. [https://old.fssai.gov.in/Portals/0/Pdf/Draft\\_Manuals/Beverages and confectionary.pdf](https://old.fssai.gov.in/Portals/0/Pdf/Draft_Manuals/Beverages and confectionary.pdf)
4. <https://cbseportal.com/project/Download-CBSE-XII-Chemistry-Project-Food-Adulteration#gsc.tab=0> (Downloadable e material on food adulteration)
5. <https://www.fssai.gov.in/>
6. <https://indianlegalsolution.com/laws-on-food-adulteration/>
7. <https://fssai.gov.in/dart/>
8. <https://byjus.com/biology/food-adulteration/>
9. Wikipedia
10. Vikaspedia

**ELEMENTARY NUMBER THEORY**

**SEMESTER: III**

**No of Credits: 2**

**Unit I: Divisibility**

**(10 periods)**

- 1.1 Introduction and basic properties of divisibility.
- 1.2 Well ordering principle Definition of Divisors
- 1.3 Division algorithm and related problems.
- 1.4 GCD, Euclidean Algorithm, problems,

**Unit II: Primes**

**(10 periods)**

- 2.1 Relatively prime definitions, Euclid’s lemma and Fundamental theorem of arithmetic.
- 2.2 The number of Divisors of a positive integer N.
- 2.3 Highest power of a prime number containing n! Problems.
- 2.4 Bracket function.

**Unit III: Congruences**

**(10 periods)**

- 3.1 Congruence modulo n definition,
- 3.2 Congruence classes, linear congruence definition, Examples, theorems, problems.
- 3.3 Inverse modulo m.
- 3.4 Euler’s  $\phi$  function definition and theorems.
- 3.5 Fermat’s little theorem and Wilson’s theorem

**Prescribed Text book:**

S.NO	AUTHOR	TITLE OF THE BOOK	PUBLISHER	YEAR OF PUBLICATION
1	V Venkateswara Rao, N. Krishna Murthy, BVSS Sarma and S Anjaneya Sastry.	A Textbook of B.Sc Mathematics Vol – I for degree classes.	S – Chand & Company Ltd.	1988

**Reference books:**

S.NO	AUTHOR	TITLE OF THE BOOK	PUBLISHER	YEAR OF PUBLICATION
1	A Anjaneyulu	A Text book Mathematics – Vol I	Deepthi Publications.	1998

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<b>Skill Development Courses</b>	<b>SDCECOT01</b>	<b>2020-21</b>	<b>BA</b>
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### **SEMESTER- III**

#### **FINANCIAL MARKETS**

Total 30 hrs (2hrs/wk) 02 credits & Maximum 50 Marks

#### **Syllabus**

##### **UNIT-I:** 06hrs

Indian Financial System- its components - Financial markets and institutions

##### **UNIT-II:** 10hrs

Capital Market - its function - organizations - elements - (shares, debentures, bonds, mutual funds)  
debt market - Equity market (SEBI) and secondary market (NSE)

##### **UNIT-III:** 10hrs

Money market - Organized - Unorganized - Sub market (call money, commercial bills, Treasury bill, Certificate of Deposit, Commercial papers)

#### **Reference books:**

- 1.T.R. Jain R.L.Sarma - Indian Financial System- VK Global publisher
2. Jithendra Gala - Guide to Indian Stock markets Buzzing Stock publishing house

#### **TEXT BOOKS:**

3. Saha Siddhartha- Indian financial System- and Markets - McGraw hill
4. Websites on Indian Financial markets.



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<b>Skill Development Courses</b>	<b>SDCGT01</b>	<b>2020-21</b>	<b>BA</b>
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### SEMESTER- III

## DISASTER MANAGEMENT

Total 30hrs (2hrs/week) 2 Credits Total 50 Marks

### UNIT-I: 06 hrs

Introduction of Disaster - Different types of disasters- Natural- (flood, cyclone, earthquake, famine and pandemic) - Accidental- (Fire, Blasting, Chemical leakage, Rail, Aviation, Road boat tragedies and nuclear pollution) - Disaster Management Act 2005

### UNIT-II: 09hrs

Causes and immediate effects of Disasters - Preparedness of disasters –Precautions – Dissemination of information - Nature and concepts - Role of National Disaster Management Authority and Role of Government and non governmental organizations in protecting human livestock and natural resources.- Use of technology -Role of Citizens and Youth in the prevention.

### UNIT-III - 09 hrs

Post disaster effects - short term - Procedures for Rehabilitation and Recovery - Role of volunteers and Safety Precautions - Long term remedial and preventive measures – Collection, filing and storage of information - Case studies

### References:

1. Jagbirsingh - Disaster Management Future challenges and opportunities- - K.W.Publishers
2. GOI - UNDP Disaster Management Guidelines
3. J.P.Singhal - Disaster Management - Laxmi Publications
4. www.ndma.gov.in
5. Wikipedia and other websites on Disaster management.

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<b>Skill Development Courses</b>		<b>2020-21</b>	
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**SEMESTER- III**

**ENVIRONMENTAL AUDIT**

Total 30 hrs (02h/wk), 02 Credits & Max 50 Marks

**UNIT – I**

**Industrial Pollution and its effects**

06h Climate

– Weather and Air Pollution – Classification of water and water bodies – Water Quality Parameters – Water Pollution – Sources – Classification, nature and Toxicology of water pollutants. - Soil parameters –Soil pollution and impacts – Soil conservation

**UNIT - II**

**Environmental Law & Policy:**

09h

Highlights of the Acts, Institutional arrangements for: (1) The Water (Prevention & Control of Pollution) Act, 1974 amended in 1988; (2) The Air (Prevention and Control of Pollution) Act, 1981 amended in 1987; (3) The Water (Prevention and Control of Pollution) Cess Act, 1977 amended in 1991; (4) The Environment (Protection) Act, 1986; (5) The Public Liability Insurance Act, 1991; – Indian Policy Statement for abatement of Pollution, 1992.

**UNIT - III**

**Environmental Audit - Scope & Requisites:**

10h

Environmental Audit: Definition; Objectives; Scope, Coverage - GOI Notification on Environmental Audit - Benefits to Industry. Reporting Environmental Audit Findings - Importance of Environmental Audit Report to industry, public and the governments.

**Reference books and websites:**

1. Environmental Education in India by K.R. Gupta
2. Environmental Legislation in India by K.R. Gupta
3. <https://parivesh.nic.in/>
4. <https://www.cpcb.nic.in/>
5. <https://www.free-ebooks.net/environmental-studies-academic>

<b>Skill Development Courses</b>		<b>2020-21</b>	
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## **SEMESTER- III**

### **POULTRY FARMING**

#### **Section I (Introduction to Poultry Farming): 10Hrs**

- 1.1 General introduction to poultry farming -Definition of Poultry; Past and present scenario of poultry industry in India.
- 1.2 Poultry Breeds.
- 1.3 Principles of poultry housing. Poultry houses. Systems of poultry farming.
- 1.4 Management of chicks, growers and layers. Management of Broilers.

#### **Section II (Feed and Livestock Health Management): 10 Hrs**

- 2.1 Poultry feed management – Principles of feeding, Nutrient requirements for different stages of layers and broilers. Feed formulation and Methods of feeding.
- 2.2 Poultry diseases – viral, bacterial, fungal and parasitic(two each); symptoms, control and management; Vaccination programme.

#### **Section III(Harvesting of Eggs and Sanitation): 10 Hrs**

- 3.1 Selection, care and handling of hatching eggs. Egg testing. Methods of hatching.
- 3.2 Brooding and rearing. Sexing of chicks.
- 3.3 Farm and Water Hygiene, Recycling of poultry waste.
- 3.4 Factors effecting economic return and efficient marketing.
- 3.5 Preparation of project report for banking and insurance.

#### **Reference books:**

1. Sreenivasaiah., P. V., 2015. Textbook of Poultry Science. 1st Edition. Write & Print Publications, New Delhi
2. Jull A. Morley, 2007. Successful Poultry Management. 2nd Edition. Biotech Books, New Delhi"
3. Hurd M. Louis, 2003. Modern Poultry Farming. 1st Edition. International Book Distributing Company, Lucknow."
4. Life and General Insurance Management, "
5. Financial services, Tata McGraw hill
6. <http://www.asci-india.com/BooksPDF/Small%20Poultry%20Farmer.pdf>
7. [https://nsdcindia.org/sites/default/files/MC\\_AGR-Q4306\\_Small-poultry-farmer-.pdf](https://nsdcindia.org/sites/default/files/MC_AGR-Q4306_Small-poultry-farmer-.pdf)
8. <http://ecoursesonline.iasri.res.in/course/view.php?id=335>
9. [https://swayam.gov.in/nd2\\_nou19\\_ag09/preview](https://swayam.gov.in/nd2_nou19_ag09/preview)

<b>COMPUTER SCIENCE</b>		<b>2020-21</b>	<b>B.Sc. ( MECS, MSCA, MSDS, HONORS)</b>
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## **SEMESTER – III**

**Credits: 2**

### **DIGITAL WELLBEING**

**Total Hrs. 30 (15 Hrs Teaching + 15 Hrs Co – Curricular Activities)**

**UNIT – I Introduction to Cybercrime and Cyber offenses**

**3 Hrs**

Introduction to Cyber Crime: Definitions: Cybercrime.(Including Definitions in Box 1.1), Cybercrime and Information Security (including example in Box 1.2), Who are Cybercriminals? Classifications of Cybercrimes, Cybercrime and ITA 2000.

**UNIT – II Digital Security Tools and Techniques 3 Hrs**

- a) Uncovering fake news, Is Privacy is a Myth?
- b) Consent & Data Why is it different online.
- c) Uncovering Fake News

**UNIT – III Digital Safety – Physical & Psychological Wellbeing 3Hrs**

- a) Cyber bullying,
- b) Digital Parenting,
- c) Digital Addiction,

**UNIT – IV Digital Spirit – Legal and Ethical Issues 3Hrs**

- (a) Cyber Crime against Women and Children,
- (b) Managing Negative Comments Online,
- (c) Impact of Digital Technology on Human Wellness
- (d) Social Engineering Crimes

**UNIT – V Case Studies 3Hrs**

Case Studies (Mini Cases): State of Tamil Nadu vs. Suhas Katti Case, The Slumdog Millionaire Movie Piracy case, Cyber Pornography involving a Juvenile Criminal, Pune Citibank MphasiS call Venter fraud, Swedish case of hacking and theft of trade secrets, Indian case of Cybersquatting and other Social Engineering Crimes modus operandi.

**Text Books:**

1. Cyber Security : Understanding Cyber Crimes, Computer Forensics ad Legal Perspectives – Nina Godbole – Sunit Belapure. Wiley India -2014.(Unit I, V)
2. Uncovering Fake News : ISBN : 978-81-946731-0-1
3. Is Privacy is a Myth? : ISBN: 978-81-946731-4-9
4. Consent & Data Why is it Different Online? :ISBN: 978-81-946731-6-3
5. Cyberbullying : ISBN: 978-81-946731-1-8
6. Digital Parenting : ISBN: 978-81-946731-7-0
7. Digital Addiction : ISBN: 978-81-946731-8-7
8. Cyber Crime Against Women and Children : ISBN : 978-81-946731-2-5
9. Managing Online Negative Comments : ISBN: 978-81-946731-5-6
10. Impact of Digital Technology on Humans : ISBN: 978-81-946731-9-4

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<b>Skill Development Courses</b>	<b>SDCBCHPO1</b>	<b>2020-21</b>	<b>FMB,FMC</b>
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**SEMESTER- III**

**MEDICAL LAB TECHNOLOGY**

Total 30 hrs (02h/wk)

Science

Stream Syllabus of Medical Lab Technology

Total- 20 hrs (02h/wk)

Credits-2  
Max Marks: 10

Unit: 1 - Microbiology

5Hrs

- 1.1- Laboratory Ethics and Laboratory discipline
- 1.2- Introduction to Microbiology, Microscopy- Types of Microscopes- simple and compound Microscopes, Preparation of reagents
- 1.3- Sterilization and Disinfection
- 1.4- Preparation of Media- Basal media- Nutrient broth

- Selective Media- Deoxycholate Citrate Agar medium
- Enriched media- Blood Agar Medium
- Anaerobic media- Robertsons cooked meat medium

Unit:II Pathology

6Hrs

- 2.1- Introduction to Clinical Pathology
- 2.2- Urine Analysis
- 2.3- Stool Examination
- 2.4- Blood Composition and Functions
- 2.5- Blood Grouping, Estimation of Hemoglobin, RBC- calculations and importance, WBC, Platelets

Unit:III-Serology and Clinical Diagnosis

6Hrs

- 3.1- Serological, Investigations like VDRL, WIDAL, HIV and HbsAg.
- 3.2- Liver function tests- Total serum Bilirubin
- 3.3- Kidney function tests- Blood Urea, Serum creatinine

**Reference & Text Books:**

- 1. Text book of Medical Lab Technology - Dr.Praful B.Godkar
- 2. Text book of Medical Lab Technology - V.H.Talib Vol-I
- 3. Text book of Medical Lab Technology - Mukharjee Vol-I, II & III

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**Practical: MEDICAL LAB TECHNOLOGY**

Max.Marks:40

Hours: 10hrs

- 1. Microscopy- Demonstration and its applications.
- 2. Maintenance & Equipment used in Biochemistry lab
- 3. Estimation of Hemoglobin
- 4. Blood grouping with Rh factor
- 5. Serology- WIDAL test, VDRL
- 6. Estimation of creatinine
- 7. Estimation of Bilirubin
- 8. Examination of the urine collection, preservation and general comments - urine analysis

**Textbooks:**

- 1. Textbook of Medical Laboratory Technology Vol 1 & 2 Paperback – 2005 by [Godkar P.B.](#) (Author)
- 2. A Text book of Practical Biochemistry.Joshi A. Rashmi

**Reference Books:**

1. MEDICAL LABORATORY TECHNOLOGY, 2nd Edition (Hindi, BANSAL)
2. Medical Laboratory Science : Theory and Practice 1st Edition (English, Paperback, J. Ochei, Arundhati Kolhatka)

DEPARTMENT OF ZOOLOGY

ZOOLOGY	SDC	2021-2022	B.Sc. BZC & AZC
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SEMESTER-  
30 Hrs (2 H/W)

Course Code: SDCZOO02

No of Credits: 2

Title of the Paper: VERMICOMPOST TECHNOLOGY

Offered to: BSc.BZC with programme code US03

Course Type: (TH) / (P)

Year of Introduction: 2021 -2022

Year of Revision:

Percentage of Revision

Semester: III

Credits: 01

Hours Taught: 30

Max.Time: 3 Hours

Course Prerequisites:

The basic knowledge about recycling of organic waste through Vermi technology.

Course Description:

This course involves the knowledge and skill about artificial rearing or cultivation of earthworms and using them for the production of compost from natural organic wastes. These wastes are degraded into nutrient rich manure that can be used as vermicompost.

OBJECTIVES:

- Generally, the main objective of composting is to increase the nutrient. Density and nutrient availability of manure with minimal mechanical processing and odour via the control of a biological process.
- This process assists storage, transport and reuse.
- The key role of vermicompost is change in physical, chemical and biological properties of soil by earthworm activities, thus called as soil managers.
- It substantially improves soil structure, texture, aeration and prevents soil erosion.

COURSE OUTCOMES:

By the end of the course students will be able to

CO1	Identify the different species of earthworms and their influence on soil fertility.
CO2	Apply the concept of solid waste management in vermiculture.
CO3	Analyse the benefits of Vermiculture products in agriculture practice, economics of vermi technology along with the practical difficulties.
CO4	Maintain a small vermicompost bin as a simple method for converting the Kitchen waste
CO5	Acquire skill in developing vermicomposting as an industry.

UNIT- I 5 HOURS

**1.1.** Introduction to vermicomposting. Definition, meaning, history, economic Importance and its value

3Hours

**1.2.** Maintenance of soil structure, role as four 'R's of recycling

(Reduce, Reuse, Recycle, Restore)	2 Hours
<b>UNIT- II 9HOURS</b>	
2.1. Different types and species of earthworms and their selection (local and exotic)	4 Hours
2.2. Earthworm Biology and Rearing - Biology of <i>Eisenia fetida</i> . (Alimentation, fecundity, reproduction and limit factors (gases, diet, humidity, Temperature, PH, light, and climatic factors).	5 Hours
<b>UNIT- III 16HOURS</b>	
3.1. Vermicomposting Technology – Raw materials and requirements for composting	3Hours
3.2. Methodology (pit method, heap method and window method) and maintenance of vermicomposting	4 Hours
3.3. Nutritional Composition of Vermicompost for plants and comparison with other fertilizers	4 Hours
3.4. Vermiwash - collection, composition and use	3Hours
3.5. Enemies of Earthworms and frequent problems	2 Hours

.Reference Books:

1. Bhatt J.V. & S.R. Khambata (1959) "Role of Earthworms in Agriculture" Indian Council of Agricultural Research, New Delhi
2. Dash, M.C., B.K.Senapati, P.C. Mishra (1980) " Verms and Vermicomposting" Proceedings of the National Seminar on Organic Waste Utilization and Vermicomposting Dec. 5-8, 1984, (Part B), School of Life Sciences, Sambalpur University, Jyoti Vihar, Orissa.
3. Edwards, C.A. and J.R. Lofty (1977) "Biology of Earthworms" Chapman and Hall Ltd., London.
4. Lee, K.E. (1985) "Earthworms: Their ecology and Relationship with Soils and Land Use" Academic Press, Sydney.
5. Kevin, A and K.E.Lee (1989) " Earthworm for Gardeners and Fisherman" (CSIRO, Australia, Division of Soils)
6. Rahudakar V.B. (2004). Gandul khatashivay Naisargeek Paryay, Atul Book Agency, Pune.
7. Satchel, J.E. (1983) "Earthworm Ecology" Chapman Hall, London.
8. Wallwork, J.A. (1983) "Earthworm Biology" Edward Arnold (Publishers) Ltd. London.

Course Delivery method: Face-to-face / Blended.

Course has focused on: Skill Development

WEB LINKS:

UNIT-1

[HTTPS://WWW.YOUTUBE.COM/WATCH?V=2F3KDJDdF0W](https://www.youtube.com/watch?v=2F3KDJDdF0W)

[HTTPS://WWW.YOUTUBE.COM/WATCH?V=SB4NSGVdKQU](https://www.youtube.com/watch?v=SB4NSGVdKQU)

[HTTPS://WWW.YOUTUBE.COM/WATCH?V=J\\_SU8DMGP3C](https://www.youtube.com/watch?v=J_SU8DMGP3C)

UNIT-II

[HTTPS://WWW.YOUTUBE.COM/WATCH?V=GI4\\_MCLQSH4](https://www.youtube.com/watch?v=GI4_MCLQSH4)

[HTTPS://WWW.YOUTUBE.COM/WATCH?V=J\\_F55AO\\_CU0](https://www.youtube.com/watch?v=J_F55AO_CU0)

[HTTPS://WWW.YOUTUBE.COM/WATCH?V=PIDDLXSA590](https://www.youtube.com/watch?v=PIDDLXSA590)

UNIT-III

[HTTPS://WWW.YOUTUBE.COM/WATCH?V=2F3KDJDdF0W](https://www.youtube.com/watch?v=2F3KDJDdF0W)

[HTTPS://WWW.YOUTUBE.COM/WATCH?V=NUOMEQY170M](https://www.youtube.com/watch?v=NUOMEQY170M)

[HTTPS://WWW.YOUTUBE.COM/WATCH?V=MVUWOSKAQ3Q](https://www.youtube.com/watch?v=MVUWOSKAQ3Q)



[HTTPS://WWW.YOUTUBE.COM/WATCH?V=G4LNPHGGF6C](https://www.youtube.com/watch?v=G4LNPHGGF6C)

UNIT-IV

[HTTPS://WWW.YOUTUBE.COM/WATCH?V=TFVVEEQQTQL8](https://www.youtube.com/watch?v=TFVVEEQQTQL8)

[HTTPS://WWW.YOUTUBE.COM/WATCH?V=VGTNHLQB7WW](https://www.youtube.com/watch?v=VGTNHLQB7WW)

[HTTPS://WWW.YOUTUBE.COM/WATCH?V=2PA1FwmKZcQ](https://www.youtube.com/watch?v=2PA1FwmKZcQ)

## **SKILL DEVELOPMENT COURSES**

### **SRI DURGA MALLESWARA SIDDHARTHA MAHILA KALASALA : VIJAYAWADA-10**

(An Autonomous college in the jurisdiction of Krishna University, Machilipatnam)

<b>Skill Development Course</b>	SDCCSCT 02	2020 -'21	<b>B.Sc (MSCS (A) &amp; (B), MSCA &amp; MECS)</b>
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**SEMESTER – II**

**Credits: 2**

**Teaching Hrs.: 30**

**Course Objectives:**

#### **DIGITAL MARKETING**

#### **Skill Development Course**

The aim of the Digital Marketing Course is to provide students with the knowledge about business advantages of digital marketing and its importance for marketing success. The application of the gained knowledge, skills and competences will help students in forming digital marketing plans in order to manage digital marketing performance efficiently.

**Course Outcomes:**

1. Understand fundamental concepts of Digital Marketing and Channels.
2. Understand how to optimize a Web site and SEO optimization.
3. Understand Social Media Plan for measuring effects of digital marketing.

**UNIT-I: INTRODUCTION:**

**5 Periods**

1. What is Digital Marketing?
2. Difference between Traditional Marketing and Digital Marketing?
3. Benefits of Digital Marketing?
4. Latest Digital Marketing Trends
5. Digital Marketing Platforms
6. Digital Marketing Strategies for Websites
7. Career Opportunities in Digital Marketing
8. Difference Between Digital Marketing , Online Marketing and Internet Marketing
9. Functions and Types of Digital marketing
10. What is Marketing and how to build Online Marketing Plan
11. Digital Marketing Process
12. How to increase Visibility and People Engagement
13. Traffic Generation Techniques , Leads and How to gauge Performance Evaluation
14. Digital Marketing Techniques for Product Marketing and Service Marketing

**UNIT-II: SEO Training (Search Engine Optimization)**

**12Periods**

1. Introduction to SEO
2. What are Search engines and How Search Engines Work
3. Search Engine Algorithms and Latest Updates
4. Keyword Research
5. Google Trends
6. Purpose of website analytics
7. How to choose Website Analysis Tools
8. Installing Google Analytics in website
9. Competitive Analysis
10. Domain Registration and Hosting Plans
11. Keyword Placement
12. SEO Content Writing and Rewriting
13. Google Webmaster Tools
14. Sitemap Creation
15. Robots.txt File Creation
16. Google Updates and their effects in website Rankings.
17. On page Optimization strategies

**Unit-III: SEM Training ( Search Engine Marketing )**

**13Periods**

1. Introduction to Free and Paid Marketing
2. What is Search Engine Marketing?
3. What is Link Building
4. Advantages and Disadvantages of Link Building
5. Difference Between Search engines and Directories
6. Directory Submission Techniques
7. Classified Postings
8. Press Release Postings
9. Article Posting Techniques
10. Forum Postings

11. Advantages and Disadvantages of Forums
12. How and when to Participate in Groups
13. Trade Fairs and Trade lead Postings
14. Participating in Questions and Answers sites
15. What are Do Follow and No Follow Links
16. SMO Training ( Social Media Optimization )Introduction to social media optimization and Social Media Marketing
  1. Twitter Marketing
  2. Facebook Marketing, Facebook for Business , Advantages and Disadvantages
  3. LinkedIn Account creation and LinkedIn Marketing
  4. Social Bookmarking Sites, Advantages and Disadvantages of Submitting your website to Social bookmarking Sites

**TEXT BOOKS:**

1. The Beginner's Guide to Digital Marketing (2015). Digital Marketer. Pulizzi,J.(2014) Epic Content Marketing, Mcgraw Hill Education.
2. Ryan, D. (2014 ). Understanding Digital Marketing: Marketing Strategies for Engaging the Digital Generation, Kogan Page Limited.

**REFERENCE BOOKS**

Chaffey, D., e-Marketing Excellence: Planning and Optimizing Your Digital Marketing, Burlington: Elsevier.

COMPUTER SCIENCE	SDCCSCP04	2021-2022	B.Sc (CSCS)
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## SEMESTER – II

Credits: 2

Total: 30 Hrs.

### INTRODUCTION TO WORKSHEETS (EXCEL AND VBA) LAB (SKILL DEVELOPMENT COURSE)

#### Course Objectives:

This course gives students a basic understanding of using Excel and VBA using Excel.

#### Course Outcomes:

1. Student will have basic knowledge regarding Excel.
2. Student will know about Data types and Operators using VBA
3. Student will learn to create Dash board, quiz and attendance tracker applications.

#### Exercises:

##### Unit-I:

10 Periods

1. Number Conversions using Excel
2. Explore various Charts in Excel
3. Explain Macro in Excel using VBA
4. Data Types & Declare VBA Constants in Excel

##### Unit-II:

10 Periods

1. How to Use & Types of Arrays in VBA
2. VBA String Operators, VBA String Manipulation Functions
3. VBA Arithmetic Operators: Multiplication, Division & Addition
4. VBA Comparison Operators: Not equal, Less than or Equal to
5. VBA Logical Operators: AND, OR, NOT

##### Unit-III:

10 Periods

1. Create sales dashboard (such as Market wise, Product wise, quarter wise sales) in Excel using VBA code
2. Create randomized quiz question paper in Excel using VBA code.
3. Design an attendance tracker using login time of the employee in Excel using VBA code to perform the operation like if employee is late, and then lock the system.

#### Text Books:

1. Excel for Dummies by Greg Harvey

## Reference Books:

1. Excel VBA Programming For Dummies by Michael Alexander

**Web Reference:** <https://www.tutorialspoint.com/vba/index.htm>

### SRI DURGA MALLESWARA SIDDHARTHA MAHILA KALASALA :: VIJAYAWADA-10

An Autonomous college in the jurisdiction of Krishna University, Machilipatnam, A.P, India

<b>COMPUTER SCIENCE</b>	SDCCSCP03	2020-21	B.Sc (Hons & MSDS)
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**SEMESTER: II**

**No. of Credits: 2**

**Teaching Hrs. 30**

### WEB DEVELOPMENT WITH PYTHON (DJANGO) LAB

#### SKILL DEVELOPMENT COURSE

#### Course Objective:

- Install and Configure Python and Django in a development and production environment
- Demonstrate the security implications of Django features, and develop secure websites with Django
- Utilize Django Models to build an interface with powerful relational databases

**Course outcomes:** At the end of this course, the student will be able to learn:

1. How to create routes (or views), static content and files using Django.

2. How to connect templates with models to serve data dynamically.
3. How to create Models and how to connect them with Templates and Views, work with databases using SQLite.

**Unit -1:**

**1.1 Introduction and Installation of Python**

**10 Hrs.**

- 1.1.1 Basic Syntax for variables
- 1.1.2 Data Types
- 1.1.3 Indentation
- 1.1.4 If-Else conditional statements
- 1.1.5 Selection and Looping Statements:
  - 1.1.5.1 If-Else conditional statements
  - 1.1.5.2 For
  - 1.1.5.3 While loops
- 1.1.6 Functions
- 1.1.7 Modules
- 1.1.8 Exception Handling:
- 1.1.9 Functions, Lambda
- 1.1.10 Sorting
- 1.1.11 Errors and Exceptions
- 1.1.12 Custom Module
- 1.1.13 Object Oriented Programming System: Decorators
  - 1.1.13.1 Database Connection (sqlite3, mysql, postgres)
  - 1.1.13.2 OOPs (objects and classes)

**1.2 Introduction to Django**

- 1.2.1 Usage of pip for package installation
- 1.2.2 Virtual Environment
- 1.2.3 Creating Base Project
- 1.2.4 Django Web Server Django Architecture: MTV Controller
  - 1.2.4.1 Bare Bones WebApp
  - 1.2.4.2 Homepage
- 1.2.5 Introduction to Web Framework: Mapping URLs and Routing,
  - 1.2.5.1 Simple Views using HTTP Request
  - 1.2.5.2 HTTP Response
- 1.2.6 Introduction to Frontend: HTML
  - 1.2.6.1 CSS
  - 1.2.6.2 BOOTSTRAP

**Unit -2:**

**2.1 Django Template Language, Models, Views**

**10 Hrs.**

- 2.1.1 Django Template Language: Template Settings
  - 2.1.1.1 Rendering, Base Directory
  - 2.1.1.2 Static Files
  - 2.1.1.3 Extensions
  - 2.1.1.4 Template Inheritance
  - 2.1.1.5 Template Tags
- 2.1.2 Django Models: Models
  - 2.1.2.1 In-built Model Fields
  - 2.1.2.2 External Model-Fields
  - 2.1.2.3 Custom Model-Fields
  - 2.1.2.4 Models API for queries
- 2.1.3 Django Views: Function Based Views
  - 2.1.3.1 Class Based Views

- 2.1.3.2 Usage of kwargs in CBV and FBV, Tem
- 2.1.3.3 late Rendering

**Unit - 3:**

**3.1 Django Forms, Django Admin, CRUD App**

**10 Hrs.**

- 3.1.1 Django Forms: Basic Forms
  - 3.1.1.1 Model Forms
  - 3.1.1.2 Multiple Forms
  - 3.1.1.3 Forms API,
- 3.1.2 Django Admin:
  - 3.1.2.1 User Creation
  - 3.1.2.2 Reusable app for login page
  - 3.1.2.3 User management
- 3.1.3 Basic CRUD App: Using In-built Views and Django Template Language
- 3.1.4 Django Async: JAVA SCRIPT
  - 3.1.4.1 AJAX
  - 3.1.4.2 JQUERY
- 3.1.5 Basic Functions: Email
  - 3.1.5.1 Like Button
  - 3.1.5.2 Notifications

**3.2 Django DIY Application, Intro to Git, Deploying in Cloud**

- 3.2.1 DIY Application (Q &A App)
- 3.2.2 Deploy in Cloud
- 3.2.3 Introduction & Installation of git
- 3.2.4 Python anywhere / Heroku
- 3.2.5 Django Miscellaneous (Usage of External Libraries)
- 3.2.6 Usage of External Libraries
- 3.2.7 Final hands-on web-app

**Text Book:**

[Django for Beginners: Build websites with Python and Django by William S Vincent](#)

**Student Activity**

1. Assignments (on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)
2. Student seminars (on topics of the syllabus and related aspects (individual activity))
3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups as teams))

**SRI DURGA MALLESWARA SIDDHARTHA MAHILA KALASALA, VIJAYAWADA-  
10**

(An Autonomous college in the jurisdiction of Krishna University : Machilipatnam)

<b>Skill Development Courses</b>	<b>SDCCOMT 04</b>	<b>2020-21</b>	
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**SEMESTER:II**

**ADVERTISING**

**COURSE OUTCOMES:**

After successful completion of this course, the student will be able to:

**CO1** Understand the basics of Advertising

**CO2** Comprehend the structure of an Advertisement

**CO3** Understand the functioning of an Advertising Agency

**CO4** Comprehend opportunities and challenges in Advertising sector

**UNIT I Introduction to Advertising**

**07 Hours**

1.1 Functions of Advertising

1.2 Types of advertising

1.3 Advertising Media

1.4 Advertising campaign planning process

**UNIT II Advertisement Designing**

**10 Hours**

2.1 Factors determining the design of an Advertising Message

2.2 Elements in Advertising Message structure

2.3 Role of AAI (Advertising Agencies Association of India)

2.4 Role of ASCI (Advertising Standard Council of India)

**UNIT III Functioning of an Advertising agency**

**10 Hours**

3.1 Functions of an Advertising agency

3.2 Organizational structure of an Advertising agency

3.3 Process for Identifying Target groups

3.4 Prospects for an Advertising agency in India

**Co-curricular Activities:**

**03 hours**

- Classroom Seminar
- Group discussion
- Collection and segmentation of advertisements

**Reference Books:**

4. Bhatia. K. Tej - Advertising and Marketing in Rural India - Mc Millan India

5. Ghosal Subhash - Making of Advertising - Mc Millan India

6. JethWaney Jaishri & Jain Shruti - Advertising Management - Oxford university Press  
Publications of Indian Institute of Mass Communications.



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<b>Skill Development Courses</b>	<b>SDCCOMT 05</b>	<b>2020-21</b>	
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**SEMESTER: III**

**No of Credits: 2**

**LOGISTIC AND SUPPLY CHAIN**

**Total: 30 hours (02h/week)**

**Max: 50 Marks**

Learning Outcomes: At the successful completion of the course, the student will able to;

- CO1.** Summarize relationship between marketing and Logistic Management
- CO2.** Understand the concepts of Supply Chain Management in connection with products.
- CO3.** Understanding various types of seller and suppliers
- CO4.** Evaluate best logistic method among all means of transport operations
- CO5.** Analysis of different distribution strategies - online and physical distribution
- CO6.** Compare the Logistics in National and International Scenario.
- CO7.** Design and develop new methods and models of Logistics in SCM

**Unit-1:**

**6hrs**

Introduction to Logistics and Supply Chain Management (SCM): Functions of Logistics - Structure of logistics - Logistics Costs - Modes of Logistics - Logistics in 21st Century -- Role of Supply Chain Management - Design and Development of Supply Chain Network - Different types of Supply Chain Networks

**Unit-II:**

**10hrs**

Logistics: Customer Selection - Process -Customer Service and Customer Retention – Relationship Management - Integrating Logistics and Customer Relationship Management

**Unit-III:**

**10hrs**

Supply Chain Management: Managing and Estimating Supply Chain Demand – Forecasting Techniques – Supplier Networks –Skills to Manage SCM - Recent Trends in SCM Suggested

**Co-curricular Activities:**

**4hrs**

1. Invited lecture from Domain/Industry Experts
2. Field Visit (Manufacturing units, Suppliers)
3. Assignments, Seminars, Group Discussion, Quiz and Role Play
4. Poster presentations on SCM
5. Case Study Development

**References:**

1. Shailesh Kasande, Materials and logistics Management, NiraliPrakashan
2. Jhamb LC, Materials and logistics Management, Everest Publishing House. 3. Martin Christopher,Logistics & Supply Chain Management, Prentice Hall.
4. Alan Rushton, Phil Croucher & Peter Baker (CILT), Logistics and Distribution Management,Kogan Page Ltd.

5. G. Raghuram , Logics and Supply Chain Management, Macmillan.
6. Dr. Gopal Krishnan – Material Management Rearview, Pearson New Delhi. 7. B.S. Sahay, Macmillan, Supply Chain Management, Pearson Education.
8. Bowersox, Closs & Cooper, Supply Chain Logistics Management, McGraw-Hill.
9. Websites on Logistics and supply chain management.