



# V. S. M. COLLEGE (A) : RAMACHANDRAPURAM

## REASONING SKILLS -SYLLABUS

SUBJECT: Add-On Programs  
PAPER CODE: CCMAT02

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### **Aims & Objectives:**

After reading this chapter, you should be able to:

- Improves the logical thinking and problem solving techniques
- Demonstrate the difference between deductive and inductive reasoning
- Construct a logically sound and well-reasoned argument
- Avoid the various fallacies that can arise through the misuse of logic
- Apply chapter concepts in final questions and activities
- Understand and explain the importance of critical thinking
- Identify the core skills associated with critical thinking

### **CONCEPTS:**

1. Number Series
2. Letter Series
3. Number Analogy
4. Letter Analogy
5. Number Classification
6. Letter Classification
7. Coding-Decoding
8. Blood Relations
9. Directions

**Prescribed text book:**

- A Modern Approach to Logical Reasoning Book by R.S. Aggarwal, S.Chand
- Quantitative Aptitude for Competitive ExaminationsBook by ABHIJIT GUHA and R.S. Aggarwal, S.Chand

**Course outcomes:**

- Making real-time decisions by rapidly assessing the facts and assumptions
- Identifying logical errors, false conclusions and unsubstantiated assertion
- Eliciting information from other using tactful and insightful questioning techniques
- Detecting and taking definitive action to prevent potential problems
- Using a structured frame work to assist in problem solving

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**V.S.M. COLLEGE(A), RAMACHANDRAPURAM**

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(Affiliated to Adikavi Nannaya University)

**DEPARTMENT OF ZOOLOGY**



**BOARD OF STUDIES**

**ADD-ON-PROGRAMME SYLLABUS**

**SOLID WASTE MANAGEMENT**

**V.S.M. COLLEGE(AUTONOMOUS),RAMACHANDRAPURAM NAAC Re-accredited  
with `13' Grade at 2.69 CGPA  
(Affiliated To AdikaviNannaya University,Rajamahendravaram)**

**DEPARTMENT OF ZOOLOGY**

**AIM AND OBJECTIVES OF THE PROGRAMME**

**Aims & Objective:**

- To assess the activities involved for the proposed and determine the type, nature And estimated volumes of waste to be generated;
- To identify any potential environmental impacts from the generation of waste at the Site;
- To recommend appropriate waste handling and disposal measures / routings in Accordance with the current legislative and administrative requirements
- To categorise waste material where practicable (inert material / waste fractions) for Disposal considerations i.e. public filling areas / landfill.
- The Primary Goal of Solid Waste Management Is Reducing and Eliminating adverse impacts of waste Materials on human health and the environment to support economic development and superior quality of life.
- The Most Important Reason For Proper Waste Management is to Protect The Environment and for the health and safety of the Population.
- Waste Management Purpose is Collection and Disposal of waste in the world to keep environment safe and transformed into nutritious soil.
- For Proper Disposal of Waste material the activities required to degrade waste easily.

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DEPARTMENT OF ZOOLOGY  
SOLID WASTE MANAGEMENT  
**Add On Programme Syllabus**

PAPER CODE : CCZ002

**Introduction to Solid Waste Management**

**(Total Hours - 30)**

**Unit - I**

**(4hrs)**

**Introduction to Environment**

Ecosystem –meaning- Types -Components- Structure – Functions, Levels of organization in nature- Food chain and Trophic structure, Biogeochemical Cycles, Energy flow.

**Unit - II**

**(4hrs)**

**Municipal solid waste**

Definition - Sources and types of solid waste- composition and its determinants of Solid waste-factors influencing generation-quantity assessment of solid wastes-methods of sampling and characterization.

**Unit - III**

**(8hrs)**

**Collection and Transfer**

**Collection:** Collection of Solid waste – collection services – collection system, equipments – time and frequency of collection – labour requirement – factors affecting collection – analysis of collection system – collection routes – preparation of master schedules.

**Transfer and Transport:** Need for transfer operation – transfer stations – types – transport means and methods – location of transport stations - Manpower requirement – collection routes: Transfer stations – selection of location, types & design requirements, operation & maintenance.

**Management of hazardous wastes**

Identifying a hazardous waste – methods – Quantities of hazardous waste generated – Components of a hazardous waste management plan – Hazardous waste minimization – Disposal practices in Indian Industries – Future challenges.

## **Unit - IV**

**(6hrs)**

### **Biomedical and chemical wastes**

Biomedical wastes – Types – Management and handling – control of biomedical wastes

Chemical wastes – Sources – Domestic and Industrial - Inorganic pollutants –  
Environmental effects – Need for control – Treatment and disposal techniques –  
Physical, chemical and biological processes – Health and environmental effects.

Recovery of Resources, conversion products and energy recovery – recoverable materials – processing and recovery systems – incineration with heat recovery.

## **Unit - V**

### **Municipal Solid Waste Management Rules**

**(8hrs)**

Solid waste management – Hazardous Wastes (Handling and Management) Rules 1998- Bio-medical Wastes (Handling and Management) Rules 1998-Recycled plastics (Manufacture and Usage) Rules, 1999-Municipal Solid Waste Management Act 2003- Rules - E.I.A and Public Hearing- Eco-labeling-Eco Mark

### **Disposal of Solid Wastes**

Refuse disposal – various methods – incinerations – principle features of an incinerator – site selection and plant layout of an incinerator - sanitary landfill- methods of operation – advantages and disadvantages of sanitary land fill - site selection – reactions accruing in completed landfills – gas and leachate movement and control – equipments necessary.

## PRACTICALS :

1	Determination of Total Solids, fixed solids and volatile solids
2	Lab scale study of aerobic and anaerobic digesting of solid wastes (Both industrial & Municipal)
3	A Visit to the Hazardous waste Generation or disposal site.
4	Practical knowledge and working of incinerators
5	Visit to Industrial area, especially the handling of Hazardous materials
6	Ecology baseline and impact of waste – disposal on vegetation
7	Preparation of Project report based on a case study of one hospital

## Reference

- 1) George Tchobanoglous et al, "Integrated Solid Waste Management" McGraw - Hill, 1993.
- 2) Tchobanoglous Thiesen Ellasen; Solid Waste Engineering Principles and Management, McGraw - Hill 1997.
- 3) R.E.Landrefh and P.A.Rebers, "Municipal Solid Wastes-Problems & Solutions" ,Lewis, 1997.
- 4) Manual on Municipal 1 Solid waste Management, CPHEEO, Ministry of Urban Development, Govt. Of. India, New Delhi, 2000.
- 5) Blide A.D.& Sundaresan, B.B,"Solid Waste Management in Developing Countries", INSDOC, 1993.
- 6) Ecology Science and Practice; Claude Fourie, Christian Ferra, Paul Medori, Tean Devaux, Oxford and IBH Publishing Co (Pvt) LTD, special Indian edition.
- 7) Principles of Ecology- P.S.Verma, V.K.Agarwal.S.Chand & Company (Pvt) LTD 1989.
- 8) J. Glynn Henry and Gary. W. Heinke, "Environmental Science and Engineering", Pretice Hall of India, 2004.



9) A. D.Bhide and B.B.Sundaresan, "Solid Waste Management – Collection, Processing and disposal" Mudrashilpa Offset Printers, Nagpur, 2001.

10) Biomedical waste (Management and Handling) Rules, 1998.

**V. S. M. COLLEGE (A) : RAMACHANDRAPURAM**  
**DEPARTMENT OF BOTANY**



**SYLLABUS**

(w.e.f. 2015-16)

**ADD ON PROGRAM**

**Paper : MUSHROOM CULTURE AND TECHNOLOGY**

**PAPER CODE: CCBOT02**

Hours: 60 hrs. (2hrs per Week)

Number of Credits: 2

Max. Marks: **25 Marks**

Time: 2hrs

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

**Max Marks: 25**

**Course Outcomes :**

1. Know about nutritional and medicinal value of edible mushrooms & Poisonous mushrooms and learn about the Cultivation techniques of mushroom
2. Apply the uses and lore of many mushrooms and culture techniques to further explore their cultivation potential.
3. Gain knowledge on the present status of mushroom industry in India
4. Apply laboratory techniques to the capture, culture, and fruiting of many types of mushrooms in the home kitchen lab.

**Total hours of teaching 60hrs @ 3hrs per week**

**UNIT I: INTRODUCTION, HISTORY:**

**(6hrs)**

1. Introduction - history - scope of edible mushroom cultivation, Types of edible mushrooms available in India—*Volvariella volvacea*, *Pleurotus citrinus*, *Agaricus bisporus*.
2. Nutritional and medicinal value of edible mushrooms; Poisonous mushrooms.

**UNIT II: PURE CULTURE-SPAWN PREPARATION**

**(6hrs)**

1. Pure culture - preparation of medium (PDA and Oatmeal agar medium)sterilization - preparation of test tube slants to store mother culture – culturing of *Pleurotus* mycelium on Petriplates, preparation of mother spawn in salinebottle and polypropylene bag and their multiplication.

### **UNIT III: CULTIVATION TECHNOLOGY**

**(6hrs)**

1. Infrastructure: Substrates (locally available) Polythene bags, vessels, Inoculation hook, inoculation loop, low cost stove, sieves, culture rack, mushroom unit (Thatched house) water sprayer, tray, small polythene bag.
2. Mushroom bed preparation - paddy straw, sugarcane trash, maize straw, banana leaves. Factors affecting the mushroom bed preparation - Low cost technology, composting technology in mushroom production.

### **UNIT IV:**

#### **FOOD PREPARATION:**

**(6hrs)**

Types of foods prepared from mushrooms;soup,cutlet omlette,samosa,pickles and curry. ResearchCentres - National level and Regional level. Cost benefit ratio - Marketing in India and abroad, Export Value

### **UNIT V:**

#### **. STORAGE AND NUTRITION**

**(6hrs)**

1. Short-term storage (Refrigeration - up to 24 hours) Long term Storage (canning, pickels, papads), drying, storage in salt solutions. Nutrition - Proteins - amino acids, mineral elements nutrition - Carbohydrates, Crude fibre content – Vitamins.

### **Suggested activities:**

1. Growing spawn on laboratory prepared medium in petriplates and maintaining, preparing compost and compost beds, packing of beds, spawning, maintaining moisture, picking, blanching and packing.
2. Collecting naturally growing mushrooms and identifying them properly, visits to mushroom houses.

### **Suggested Readings:**

1. Marimuthu, T. Krishnamoorthy, A.S. Sivaprakasam, K. and Jayarajan. R (1991) Oyster Mushrooms, Department of Plant Pathology, Tamil Nadu Agricultural University, Coimbatore.
1. Swaminathan, M. (1990) Food and Nutrition. Bappco, The Bangalore Printing and Publishing Co. Ltd., No. 88, Mysore Road, Bangalore – 560018.
3. Tewari, Pankaj Kapoor, S.C., (1988). Mushroom cultivation, Mittal Publications, Delhi.

4. Nita Bahl (1984-1988) Hand book of Mushrooms, II Edition, Vol. I & Vol. II.
5. Biswas, S., M. Datta and S.V. Ngachan. 2011. Mushrooms: A Manual For Cultivation. PHI learning private Ltd., New Delhi, India.
6. Chang, S. and P.G. Miles. 2004. Mushrooms: cultivation, nutritional value, medicinal effect, and environmental impact. CRC Press. USA.
7. Miles, P.G. and S. Chang. 1997. Mushroom Biology Concise basics and current developments. World Scientific Publishing Co. Pte.Ltd. Singapore.

**V.S.M. College (Autonomous) :: RAMACHANDRAPURAM**

**Department of Computer Science**

**I B.Sc /B.Com/B.A./MCA**

**Paper Code: CCCSO1**

**TITLE: ADDON COURSE ON MULTIMEDIA SYSTEMS**

**w.e.f 2015-16**

**I Hour/Day**

**Total Days: 30**

**Course objectives and outcomes:-**

**Objectives:-**

students will understand multimedia in respect to many application including business, schools, home, education, and virtual reality.

- Students will understand the hardware and software needed to create projects using creativity and organization to create them.
- Student will develop multimedia skills understanding the principal players of individual players in multimedia teams in developing projects.
- Students will work with all aspects of images.
- Students will work with all aspects of sound.
- Students will work with all aspects of video.
- Students will learn copyright laws associated with multimedia.
- Students will learn the cost involved in multimedia planning, designing, and producing.
- Students will learn ways to present their multimedia projects.

**Outcomes:**

Upon successful completion the student will be able to:

Define multimedia to potential clients.

Identify and describe the function of the general skill sets in the multimedia industry.

Identify the basic components of a multimedia project.

Identify the basic hardware and software requirements for multimedia development and playback.

**UNIT I**

**What is Multimedia:** Definition – Where to use Multimedia – Delivering Multimedia

**Text-** The Power of Meaning – About Fonts and Faces – Using Text in Multimedia- Computers and Text – Font Editing and Design Tools – Hyper Media and Hyper Text

**UNIT II**

**Images:** Before you Start to Create – Making Still Images – Color – Image File Formats

**Sound** – The Power of Sound – Digital Audio – MIDI Audio – MIDI vs Digital Audio – Multimedia System Sounds – Audio File Formats – Vaughans Law of Multimedia Minimums – Adding Sound to your Multimedia Project

### **UNIT III**

**Video:** Using Video - How Video Works and is Displayed - Digital Video Containers - Obtaining Video Clips - Shooting and Editing Video

**Making Multimedia:** The Stages of a Multimedia Project - What You Need: The Intangibles- What You Need: Hardware - What You Need: Software - What You Need: Authoring Systems

### **UNIT IV**

**Multimedia Skills:** The Team – The Sum of Parts

**Planning and Costing:** The Process of Making Multimedia – Scheduling -Estimating - RFPs and Bid Proposals **Designing and Producing:** Designing - Producing

### **TEXT BOOK**

1. Multimedia: Making It Work, Tay Vaughan, 8<sup>th</sup> Edition, Tara Mc-Graw Hill.

### **REFERENCE BOOKS**

1. Multimedia Systems, John F.Koegel Buford, Pearson edition, 2003

2. Ranjan Parekh, Principles of Multimedia, TMH, 2006.Engineering Evaluation Software  
Multimedia: Computing, Communication and applications, Ralf Steinmetz and Klara Nahrstedt,  
Pearson Edition, 2001

**V.S.M.COLLEGE(A)::RAMACHANDRAPURAM**



**DEPARTMENT OF PHYSICS**  
**[UG PROGRAMMES]**

**ADD ON PROGRAMME**

**PHYSICS IN DAILY LIFE**

**2018-2019**

**CONDUCTED BY**

**K.SRINIVASA RAO**

**DEPARTMENT OF PHYSICS**

# **PHYSICS IN DAILY LIFE**

**PAPER CODE: CCPHY01**

## **COURSE OUTCOMES:**

- 1) To understand the basic principles of physics to apply the daily life
- 2) To know the everyday applications of physics
- 3) The course will give knowledge about mass, inertia, energy, power, heat and light etc.,
- 4) To list out several examples leading physics in daily life in the world

## **SYLLABUS**

### **UNIT-1: INTRODUCTION TO MECHANICS:**

Inertia, Force, Velocity, Mass and its measurements

### **UNIT-2: LAWS OF MOTION**

Newton first law of motion-Inertia of rest, Inertia of motion, Inertia of direction, Newton second law of motion, Newton third law of motion

### **UNIT -3: ENERGY**

Definition of Energy, Work done, Different forms of Energy- Mechanical energy, Kinetic energy, Potential energy, Internal energy

### **UNIT-4: CENTRE OF GRAVITY**

#### **PART-A :**

Introduction to centre of gravity, Uniform and Non uniform motions with examples ( Why ship keep afloat)

#### **PART-B**

Frictional force, Flotation and aeronautics

  
**CHAIRPERSON**  
**BOARD OF STUDIES**



# V.S.M. College (Autonomous) RAMACHANDRAPURAM

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**B.COM (GEN/CA)/ B.Sc PROGRAMME – COMMERCE**

**CERTIFICATE COURSE**

**TALLY ERP 9**

**Paper Code : CCCOM 02**

**Hours:2**  
**Credits:2**

## **Objectives:**

To make the students acquire the computer knowledge of accounting. To equip the students with the knowledge of accounting process to develop the skills of recording financial transactions with Tally software.

**Unit-I: Fundamentals of Tally. ERP 9:** Features - Start Tally, Create and Alter a Company - Creating Single Group/Multiple Groups, Display, Deleting Groups - Ledger: Creating Single Ledger / Multiple Ledgers.

**Unit-II: Creating Inventory Master:** Creating Stock Groups, Displaying, Deleting, Altering - Creating Stock Unit of Measure, Displaying and Deleting Unit Measures - Creating, Altering, Displaying, Deleting Stock items - Generating Reports.

**Unit-III: Statutory and Taxation:** VAT – Input VAT and Output VAT - GST- SGST and CGST

## **References:**

1. Tally 9 in Simple Steps, Kogent Solutions Inc., John Wiley & Sons.
2. Tally 9.0 (English Edition), (Google eBook) Computer World
3. Tally.ERP 9 Made Simple Basic Financial Accounting by BPB Publisher.
4. Tally ERP 9 For Real Time Accounting by Avichi Krishnan
5. Fundamentals of Computers, by V. Rajaraman, PHI

విఎస్ఎం అటానమస్ కళాశాల ; రామచంద్రపురం

Department of Telugu

ADD ON Programme

Telugu Journalism

తెలుగుజర్నలిజం

పాఠ్య ప్రణాళిక

యూనిట్ 1

తెలుగు పత్రికలు ఆవిర్భావం

యూనిట్ 2

పత్రిక రచన

యూనిట్ 3

వివిధ వార్తా పత్రికలు వార్తలు

డా. శ్రీనివాసరావు  
డా. విజయలక్ష్మి  
డా. లక్ష్మి

విఎస్ఎం అటానమస్ కళాశాల ; రామచంద్రపురం

Department of Telugu

ADD ON Programme : Unicode

తెలుగు లో యూనికోడ్

యూనికోడ్ పాఠ్య ప్రణాళిక

యూనిట్ 1

యూనికోడ్ నిర్వచనం- ఆవిర్భావం

యూనిట్ 2

వివిధ కొద్దు వివరణ

యూనిట్ 3

తెలుగు యూనికోడ్

శ్రీ వి. సుధాకర్  
అధ్యాపకుడు

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**BORD OF STUDIES**

**DEPARTMENT OF ZOOLOGY**

**ADD-ON-PROGRAMME SYLLABUS**

**VERMICOMPOST TECHNOLOGY**

**V.S.M. COLLEGE (AUTONOMOUS), RAMACHANDRAPURAM**  
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**DEPARTMENT OF ZOOLOGY**

**AIM AND OBJECTIVES OF THE PROGRAMME**

**Aims& Objective:**

- ❖ Students will be able to compost in a limited space and describe the decomposing process.
- ❖ The interested students will get the knowledge of composting,
- ❖ Students will get the employment,
- ❖ They can generate employments,
- ❖ They will also turn towards organic farming,
- ❖ Will help to maintain the environment pollution free and
- ❖ Will get the knowledge of biodiversity of local earthworms.

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**PAPER CODE : CCZ001**  
**Department of Zoology**

**Certificate Course : VERMICOMPOST**

S.No.	Unit-I General Vermiculture/ Vermicompost
1	Introduction to vermiculture. definition, meaning, history, economic important, their value in maintenance of soil structure, role as four r's of recycling reduce, reuse, recycle, restore.
2	His role in bio transformation of the residues generated by human activity and production of organic fertilizers. How does nature works.
3	The matter and humus cycle (product, qualities). Ground population, transformation process in organic matter.
4	Choosing the right worm. Useful species of earthworms. Local species of earthworms. Exotic species of earthworms. Complementary activities of Auto evaluation.
	<b>Unit-II Earthworm Biology and Rearing</b>
5	Key to identify the species of earthworms.
6	Biology of Eisenia fetida. a) Taxonomy Anatomy, physiology and reproduction of Lumbricidae. b) Vital cycle of Eisenia fetida: alimentation, fecundity, annual reproducer potential and limit factors (gases, diet, humidity, temperature, PH, light, and climatic factors). Complementary activities of auto evaluation.
7	Biology of Eudrilus eugeniae. c) Taxonomy Anatomy, physiology and reproduction of Eudrilidae. d) Vital cycle of Eudrilus eugeniae: alimentation, fecundity, annual reproducer potential and limit factors (gases, diet, humidity, temperature, PH, light, and climatic factors). Complementary activities of auto evaluation.
	<b>Unit-III Vermicompost Technology (Methods and Products)</b>
7	Small Scale Earthworm farming for home gardens - Earthworm compost for home gardens
8	Conventional commercial composting - Earthworm Composting larger scale
9	- Earthworm Farming (Vermiculture), Extraction (harvest), vermicomposting harvest and processing.
10	Nutritional Composition of Vermicompost for plants, comparison with other fertilizers

11	Vermiwash collection, composition & use
12	<p>Enemies of Earthworms, Sickness and worm's enemies. Frequent problems. How to prevent and fix them.</p> <p>Complementary activities of auto evaluation.</p>
<b>Unit-IV Applied vermiculture.</b>	
13	<p>a) The working group experience with <i>E. fetida</i> populations compartment with farm industrial residues (frigorific, cow places, feed-lot, aviaries exploitations, and solid urban residues). b) Lineaments to vermicomposting elaboration projects.</p>
14	<p>c) Considerations about economical aspects of this activity.</p> <p>Research and ratability according to different exploitation orientations (worm's meat production, worm's humus production, or integrated projects).</p> <p>Toxins released by the worms (harmful effects)</p> <p>Complementary activities of auto evaluation.</p>

## Theory Exam Model Question Paper Blue Print

S. No.	Short Answer Questions	Essay Question	Allowed Marks	Total
Section - A	---	1	15	15
Section - B	2	---	10	10
<b>Total Marks</b>				<b>25</b>

### Theory Exam Model Question Paper

#### Section - A

**Answer the Essay Question.**

**1 x 15 = 15M**

1. Explain the techniques involved in the production of Vermi-compost

#### Section - B

**Answer the Short Questions.**

**2 x 5 = 10M**

1. Economic importance of Vermi-culture?
2. Feed for Earthworms?



## PRACTICALS

1	Key to identify different types of earthworms
2	Field trip- Collection of native earthworms & their identification
3	Study of Sytematic position, habits, habitat & External characters of Eisenia fetida
4	Study of Life stages & development of Eisenia fetida
5	Study of Life stages & development of Eudrilus eugeniae
6	Comparison of morphology & life stages of Eisenia fetida & Eudrilus eugeniae
7	Study of Vermiculture, Vermiwash & Vermicompost equipments, devices
8	Preparation vermibeds, maintenance of vermicompost & climatic conditions.
9	Harvesting, packaging, transport and storage of Vermicompost and separation of life stages
10	Study of verms diseases & enemies
11	Study the effects of vermicompost & vermiwash on any two short duration crop plants
12	Study the effects of sewage water on development of worms

### **Advantage of the Course & Future Prospects:**

- I. Students can construct their own compost farm & thereby can get monthly income of Rs. 7000-8000.
- II. Students/ farmers by using vermicompost in their field can increase the crop yield.
- III. Students residing in cities can produce vermicompost in small scale for garden/household plants.
- IV. They can get the jobs in educational institutes as vermicompost/vermiculture technician.
- V. The candidate can generate income by supplying verms, vermiwash, & vermicompost.
- VI. By developing & propagating vermicompost technology he/she will directly or indirectly help to prevent environmental pollution, by using vermicompost in the field & thereby increasing crop yield he will help to solve food problems.
- VII. It will lead towards organic farming & healthy food.
- VIII. In today's world, recycling of garbage has become necessary in order to sustain our health and environment. So let's join for **Four R's of Recycling Reduce, Reuse, Recycle, Restore** i.e. certificate course in vermicompost technology.

### **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.

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**RAMACHANDRAPURAM**

**DEPARTMENT OF CHEMISTRY**

**ADD-ON PROGRAMME**

**COURSE TITLE: WATER ANALYSIS**

**Course Code: CCCHE01**

**No. of hours: 30**

**SYLLABUS OF WATER ANALYSIS**

1. Chapter – I: Water and Society
2. Chapter – II: Water Pollution
3. Chapter – III: Quality Parameters of Water
4. Chapter – IV: Determination of carbonate  
and bicarbonate
5. Chapter – V: Determination of chloride
6. Chapter – VI: Determination of hardness
7. Chapter – VII: Determination of pH and conductance
8. Chapter - VIII: Determination of DO
9. Chapter - VIII: Determination of COD
10. Chapter - IX: Determination of BOD

**Reference Books:**

1. Environmental Chemistry - A.K. De
2. A text book on Water and Water Chemistry - A.G.S. Reddy

**Course Outcomes:**

1. Acquire knowledge about the importance of water, pollution caused by the anthropogenic activities and the pollutants present in water.
2. Obtain knowledge about the health issues caused by polluted water and importance of Water Analysis.
3. Get information about the quality and quality parameters of water and the limits of the amounts of various parameters.
4. Attain practical knowledge about the determination of some of the quality parameters of water.

# V.S.M.COLLEGE(A):: RAMACHANDRAPURAM

## ADD-ON COURSE ON - ACCOUNTING

### TOPIC – ACCOUNTING

**COURSE CODE:-CCCOM01**

### SYLLABUS

#### Programme objectives

\* Aims to increase learner's accounting skills so as to develop attributes that enhance an individual's earning power and job performance.

\* The **objective of programme** is to inculcate potential knowledge in the learners to prepare them to deal with external world **in a collaborative manner, communicate effectively, take initiative**, solve problems, and demonstrate a positive work ethic so as to hold a good impression and positive impact.

Course Code	Course Title	Session	Course Details
	Accounting	Block - 1	<b>Unit-1 : Introduction to Accounting</b> <b>Unit-2 : Accounting Concepts &amp; Conventions</b> <b>Unit-3 : Accounting Process</b> <b>Unit-4 : Subsidiary Books</b> <b>Unit-5 : Final Accounts</b>
		Block - 2	<b>Exam conducted on Accounting</b>

**VSM COLLEGE (A) :: RAMACHANDRAPURAM**  
**Department of Sanskrit**  
**U.G.PROGRAMMES**  
**ADD ON PROGRAMME SYLLABUS**  
**CODE: CCSAN01**

Title : Important Slokas of Bhagavad Gita 7<sup>th</sup> Chapter

- Unit 1:- 1 to 10 Slokas
- Unit 2 :- 11 to 20 Slokas
- Unit 3 :- 21 to 30 Slokas



# V. S. M. COLLEGE (A): : RAMACHANDRAPURAM

## Arithmetic Ability-SYLLABUS

SUBJECT: Add-On Programs

PAPER CODE: CCMAT01

### Aims & Objectives:

After reading this chapter, you should be able to:

- Improves the mathematical logics
- To learn the mathematical rules and objects
- Improves the logical thinking and problem solving techniques
- To apply the concepts in daily life
- Apply chapter concepts in final questions and activities
- Understand and explain the importance of critical thinking
- Identify the core skills associated with critical thinking

### CONCEPTS:

1. Number System
2. LCM & HCF
3. Average
4. Ratio & Proportion
5. Partnership
6. Percentages
7. Profit & Loss
8. Time & Work
  - Pipes & Cisterns
9. Time , Distance & Speed
  - a. Trains
  - b. Boats & Streams
  - c. Races
10. Simple Interest & Compound Interest

**Prescribed text book:**

- Arithmetic Subjective and Objective for Competitive Examinations by R.S. Aggarwal (Revised Edition), S.Chand

**Course outcomes:**

- Correction in day to day life mistakes regarding money usage.
- making real-time decisions by rapidly assessing the facts and assumptions
- Identifying logical errors, false conclusions and unsubstantiated assertion
- Eliciting information from other using tactful and insightful questioning techniques
- Detecting and taking definitive action to prevent potential problems
- Using a structured frame work to assist in problem solving

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**BBA –CCBBA01**

**ADD-ON COURSE -PHOTOSHOP**

**SYLLABUS**

**(w.e.f. 2018-2019)**

**CONDUCTED BY**

**DEPARTMENT OF MANAGEMENT STUDIES**

# PHOTOSHOP- COMPUTER FUNDAMENTALS

## SYLLABUS

**COURSE CODE: CCBBA01**

**TOTAL DURATION: 30 WORKING DAYS**

### Programme Objectives

- *This objective covers critical concepts related to working with colleagues and clients, as well as crucial legal, technical, and design-related knowledge.*
- Demonstrate knowledge of basic design principles and best practices employed in the design industry.

### COURSE OUTCOMES

1. create, edit and work with text
2. work with the Photoshop
3. use various retouching and repairing techniques to correct images
4. make various color corrections using adjustment layers
5. print, share and save your images in various formats

### PART-1

**DURATION : 15 WORKING DAYS**

**UNIT-I:** Introduction to computers: Characteristics and limitations of computer, Block diagram of computer, types of computers, uses of computers, computer generations.

**UNIT-II:** Input and Output devices: Keyboard and mouse, inputting data in other ways, Pointing Devices, Handheld Devices, Optical Devices, Audio-Visual Input Devices. Output Devices: Monitors, Projectors, Speakers, Printers, Plotters. Types of Software: system software, Application software, commercial, open source, domain and free ware software. Memories: Primary, Secondary and cache memory. Secondary Storage Devices: Magnetic Tapes, Floppy Disks, Hard Disks.

### PART-2

**DURATION : 15 WORKING DAYS**

**UNIT –III** Introduction to Adobe photoshop: Getting started with photoshop, creating and saving a document in photoshop, page layout and back ground, photoshop program window-title bar, menu bar, option bar, image window, image title bar, status bar, ruler, paletts, tool box,screen modes, saving files, reverting files, closing files.

Images: working with images, image size and resolution, image editing, colour modes and adjustments, Zooming & Panning an Image, Rulers, Guides & Grids- Cropping & Straightening



an Image, image backgrounds, making selections. Working with tool box: working with pen tool, save and load selection-working with erasers-working with text and brushes-Colour manipulations: colour modes- Levels – Curves - Seeing Colour accurately - Patch tool – Cropping-Reading your palettes

**Layers:** Working with layers- layer styles- opacity-adjustment layers **Filters:** The filter menu, Working with filters- how to create adds, artistic filter, blur filter, brush store filter, distort filters, noise filters, pixelate filters, light effects, difference clouds, sharpen filters, printing.

**VSM COLLEGE (Autonomous)**  
**RAMACHANDRAPURAM**  
**Dept of English**  
**Add – On Course Syllabus & Out Comes**  
**FUNCTIONAL ENGLISH**  
**CCENG03**

**Syllabus**

- 1) Forms of Tenses
- 2) Direct-Indirect Speech
- 3) Active Voice –Passive Voice
- 4) ‘If’-Clause
- 5) Degrees of Comparison

**FUNCTIONAL ENGLISH**  
**CCENG03**  
**COURSE OUTCOMES**

**Module -1**

**CO1**-Tenses – To use the correct tense in both speech and writing.

**Module -2**

**CO2**-Students can define direct and indirect speech and can form statements.

**Module -3**

**CO3**-Students will be able to distinguish between active and passive

**Module -4**

**CO4**-Students will be able to know the probable and improbable conditions

\*\*\*\*\*

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**RAMACHANDRAPURAM**

Dept of English

**Add – On Course Syllabus & Out Comes**

**Improvement of vocabulary & writing Skills**

**CCENG02**

**Syllabus**

**Module 1&2**

- 1) Hyphen Usage
- 2) Made
- 3) Canker
- 4) Degradation
- 5) Vernacular
- 6) Stuffed
- 7) Interloper
- 8) Peoples

**Module 3&4**

- 1) Immense
- 2) Integers
- 3) Myriad
- 4) Indeed
- 5) Absolutely
- 6) Detract
- 7) Shun
- 8) Contemptible
- 9) Debased
- !0) Melodies
- 11).Mould

**Module-5**

- 1.GrammerIdiomatic Usage
- 2.Prefix-Suffix

**Module-6**

Word Mapping

## **Essay Writing**

### **Introduction**

1. What is Essay?
2. Defining an Essay
3. History of the Genesis Essay
4. Types of an Essay
5. Descriptive Essay
6. Narrative Essay
7. Expository Essay
8. Argumentative Essay
9. Imaginative Essay
10. Structure of an Essay

## **Improvement of vocabulary & writing Skills**

### **CCENG02**

#### **Course Out Comes**

#### **MODULE 1&2**

**CO1-**This improves the vocabulary usage of students and can acquire charge of those expressions.

#### **MODULE 3&4**

**CO2-**This improves the language usage of students and can obtain command of those terms.

#### **MODULE -5**

#### **WORD MAPPING.**

**CO3-**Promotes the students vocabulary development it also enhances student's vocabulary in developing their reading their comprehension.

#### **MODULE -6**

#### **ESSAY WRITING**

**CO4-**Promotes critical thinking, can access different perspectives and views.

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**Add – On Course Syllabus & Out Comes**

**Spoken English**

**CCENG01**

**Syllabus:-**

- 1) Question Tags**
- 2) Structures**
- 3) Tenses**
- 4) Active Voice & Passive Voice**
- 5) Direct & Indirect Speech**

**Spoken English**

**CCENG01**

**Course Out Comes**

**This course helps the students to frame grammatically correct sentences and acquire command over the language.**

**CO1-Question Tags – helps to pose proper questions.**

**CO2-Structures – helps in understanding and framing sentences correctly.**

**CO3-Tenses – To use the correct tense in both speech and writing.**

**CO4-Active voice / Passive voice- helps in making the language concise and interesting.**

# V. S. M. COLLEGE (A): : RAMACHANDRAPURAM

## DEPARTMENT OF BOTANY

### SYLLABUS

(w.e.f. 2015-16)

### ADD ON PROGRAM

## Paper : FRUIT PRESERVATION

**PAPER CODE: CCBOT01**



Hours: 30 hrs.

Number of Credits: 2

Max. Marks: 25 Marks

Time: 2hrs

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**Total 60 hrs (02h/wk)**

**Max Marks: 25**

### Course Outcomes :

**On successful completion of this course students will be able to;**

1. Get to know the value-added products made from fruits
2. Explain various methods of preservation for fresh fruits.
3. Understand the fragile nature of fruits and causes for their damage
4. Identify various types of fruits and explain their nutritive value.

### **Unit I: Introduction to fruits**

**6 Hrs**

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

### **Unit II :Preservation of Fruit I**

**6 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.

### **Unit III: Preservation of Fruit II**

**6 Hrs.**

1. Preservation of fruits by application of heat; making of fruit products (jams, jellies and fruit slices in processing factories).

2. Preservation by dehydration (Eg. banana chips), application of sugar (Eg. mango candy), application of salt (pickling).
3. Fruit preservation by freezing – storage at the lowest temperatures.

**Unit IV:**

**6 Hrs.**

1. identification spoilage of fruit and state the reason for spoilage, following the safety precautions
2. identify and select the fresh fruits and maintain a check list.
3. safety precautions and visual inspection

**Unit V:**

**6 Hrs.**

**Marketing of fruit products**

1. Nature of products. Cost concept, Cost curves, short run and long run equilibrium.
2. Returns to scale and economic of scale.
3. Functional management. Demand marketing. Marketing management and pricing strategies of firms.
5. Marketing environment consumer buying behaviour.

**Books for Study:**

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

**V.S.M.COLLEGE(A)::RAMACHANDRAPURAM**



**DEPARTMENT OF PHYSICS**  
**[UG PROGRAMMES]**

**ADD ON PROGRAMME**  
**FUNDAMENTALS OF NANO TECHNOLOGY**  
**2017-2018**

**CONDUCTED BY**  
**R.NAGESWARA RAO**  
**DEPARTMENT OF PHYSICS**



# **FUNDAMENTALS OF NANO TECHNOLOGY**

**PAPER CODE: CCPHY02**

## **COURSE OUTCOMES:**

- 1) To understand the importance of Nanotechnology in the years ahead.
- 2) To know the early developments applications of nanotechnology.
- 3) To know in brief about the four phases of nanostructures.
- 4) To know the applications of nanotechnology with other important areas of science.

## **SYLLABUS**

### **UNIT-1: FUNDAMENTALS OF NANO TECHNOLOGY:**

Products expect from Nanotechnology, Early development- The Assembler, wings to manufacturing of process

### **UNIT-2: NANOMETERS**

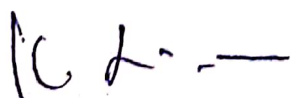
New computation methodology, Judicious use of natural resources, Nanometer, balancing the environment.

### **UNIT -3: NANOSTRUCTURES**

Four generations – Passive Nanostructures ,Active Nanostructures, System of Nanostructures, Molecular Nanostructures.

### **UNIT-4: APPLICATIONS**

Nano medicine , Boosting the economy, visions of good, visions of harm , Career in Nanotechnology, Some leading Nano Employees.



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**DEPARTMENT OF CHEMISTRY**

**ADD-ON PROGRAMME**

**COURSE TITLE: GREEN CHEMISTRY**

**Course Code: CCCHE02**

**No. of hours : 30**

**SYLLABUS FOR GREEN CHEMISTRY**

1. Chapter – I: Scope and Need of Green Chemistry
2. Chapter – II: Principles of Green Chemistry
3. Chapter – III: Atom atomic reactions
4. Chapter – IV: Extra element detection
5. Chapter – V: Preparation of Acetanilide
6. Chapter – VI: Preparation of p-bromo acetanilide
7. Chapter – VII: Preparation of p-nitro salicylic acid
8. Chapter - VIII: Preparation of 1,1-bis-( $\beta$ -Naphthol)

**Reference Books:**

1. An Introductory Text on Green Chemistry - I.T. Sidhwani & R.K. Sharma
2. Green Chemistry - V.K. Ahluwalia Narosa, New Delhi.

**Course Outcomes:**

1. Acquire knowledge about the adverse effects caused by some chemicals and their syntheses.
2. Obtain knowledge about the need and importance of Green Chemistry.
3. Get information about the Green Methods, processes, solvents and catalysts.
4. Attain practical knowledge about the preparation of some important compounds in Green methods.

## **OBJECTIVES: -**

- To gain preliminary knowledge about the Hindi language.
- To know how to talk others in Hindi language.
- To know how to read & write Hindi.
- To know how to write translation in Hindi.

## **METHODOLOGY:-**

- Minimum enrolment of students per session -20
- Duration of the programme is 20 days.
- Programme is to be conducted per 1 hour after the college hours.
- Students are encouraged to translate five sentences from Hindi to Telugu & English to Hindi Vice versa

**APPROVED**

*V. K. Chandra nala*

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V. S. M. College  
Add on course in Hindi

HINDI Department

Functional Hindi

B.A, B.Com. & B.Sc

Syllabus - 2015-2016

CCH11N01

1. वर्णमाला
2. मौसम और ऋतुएँ
3. फलों के नाम
4. बारह खड़ी
5. संधि और विलोम शब्द
6. कार्यालयी (शब्दावली) हिन्दी
7. शरीर के अंग
8. पशु और पक्षी
9. अनुवाद (अंग्रेजी तेलुगु)  
(अंग्रेजी से हिन्दी और तेलुगु से हिन्दी)

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# V. S. M. COLLEGE (A) : : RAMACHANDRAPURAM

## LaTeX-SYLLABUS

**SUBJECT: Add-On Programs**

**PAPER CODE: CCMAT03**

### **Aims & Objectives:**

- Introduction to two widely-used language for typesetting dissertations and scientific publications, for prototyping numerical algorithms and to visualize results
- Improves typesetting of journal articles, technical reports, thesis, books, and slide presentations.
- Control over large documents containing sectioning, cross-references, tables and figures.
- Typesetting of complex mathematical formulae.
- Advanced typesetting of mathematics with AMS-LaTeX.
- Automatic generation of table of contents, bibliographies and indexes.

### **TOPICS:**

- Installation of the software LaTeX, Understanding Latex compilation Basic Syntax, Writing equations, Matrix, Tables,
  - Page Layout – Titles, Abstract Chapters, Sections, References, Equation references, citation. List making environments
  - Table of contents, Generating new commands, Figure handling numbering, List of figures, List of tables, Generating index.
  - Packages: Geometry, Hyperref, amsmath, amssymb, algorithms, algorithmic graphic, color, tilez listing.
  - Classes: article, book, report, beamer, slides. IEEtran.
  - Applications to: Writing Resumae, Writing question paper Writing articles/ research papers Presentation using beamer.
- ❖ Theory, Practical and exercises based on the above concepts.

**Reference books:**

1. L<sup>a</sup>mport, L. (1994). L<sup>A</sup>T<sub>E</sub>X - a documentation preparation system user's guide and reference manual. Addison-Wesley (2nd ed.).
2. Mittelbach, F., et al. (2004). The L<sup>A</sup>T<sub>E</sub>X companion. Addison-Wesley (2nd ed.).

**COURSE OUTCOMES:**

1. Students able to use various special formatting commands, including those for mathematics, text formatting and tables. Students should be able to avoid the most common L<sup>A</sup>T<sub>E</sub>X mistakes.
2. Be able to install packages to extend L<sup>A</sup>T<sub>E</sub>X's functionality, find documentation for those packages, and discover new packages.
3. Be able to use BibT<sub>E</sub>X to generate and modify in-text citations and bibliography entries.
4. To Know of major sources for further help with L<sup>A</sup>T<sub>E</sub>X: websites, books, forums, and librarians.

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**MBA –CCMBA01**

**ADD-ON COURSE**

**SYLLABUS OF SOFT SKILLS 1&2**

**(w.e.f. 2015-2016)**

**CONDUCTED BY**

**DEPARTMENT OF MANAGEMENT STUDIES**

## **SYLLABUS OF CERTIFICATE IN SOFT SKILLS**

### **Programme Objectives**

- Aims to increase learner's unique soft skills so as to develop attributes that enhance an individual's interactions, earning power and job performance.
- The objective of the programme is to inculcate potential skills in the learners to prepare them to deal with the external world in a collaborative manner, communicate effectively, take initiative, solve problems, and demonstrate a positive work ethic so as to hold a good impression and positive impact.

### Learning Outcomes

In addition to the outdoor survival and bushcraft skills, participants will develop their social and work life skills, as well as their personal and emotional well-being including:

1. Resilience- learning to keep going when things don't go according plan coping with the unfamiliar, managing disappointment and dealing with conflict
2. team work- learning to connect and work with others to achieve a set task
3. communication- demonstrating clear briefing and listening skills not being afraid to ask for help and support when necessary
4. Employability skills: time and resource management, conflict resolution, teaching and mentoring others.



<b>Course Code</b>	<b>COURSE TITLE</b>	<b>SESSION</b>	<b>COURSE DETAILS</b>	<b>DURATION</b>
<b>CCMBA01</b>	<b>Soft Skill 1&amp; 2</b>	<b>Block-01 Soft skill 1</b>	<b>Unit 1: Introduction to Soft Skills Communication Skills• Presentation Skills• Time Management• Skills</b>	<b>15 WORKING DAYS</b>
<b>CCMBA01</b>	<b>Soft Skill 1&amp; 2</b>	<b>Block-02 Soft skill 2</b>	<b>Unit 2 : Body Language• &amp; Etiquettes Group Discussion• &amp; Interview Skills Preparation of CV•</b>	<b>15 WORKING DAYS</b>
<b>TOTAL DURATION</b>				<b>30 WORKING DAYS</b>