



Kamla Nehru Mahavidyalaya, Nagpur

QLM 1.3.1

SYLLABUS OF VALUE ADDED/ CERTIFICATE PROGRAM OFFERED

Session 2019-20

Kamla Nehru Mahavidyalaya Nagpur
Environmental Science Department
Certificate Course
On
"Agricultural Waste Management"
Syllabus

Part I: Definition of Waste, Source of Waste, Industrial waste, Commercial Waste, Domestic waste, Agricultural waste, Types of Waste, Biodegradable waste and Non-Biodegradable waste, Importance of waste Management, Scientific Way of Waste Management, Efficient Management of Landfills, Concept of 3R, Zero waste System, Benefits of Waste Management.


Part II: Indian Scenario on waste Management, Recommendation to Managed waste effectively, Introduction of Agricultural Waste, Practice Related to Agriculture and Source of Agricultural Waste, Specific hazards related to agricultural waste .

Part III: Vermicomposting Introduction, Design Consideration, Large Scale, Small Scale, Ableto worm Species, Climate and Temperature. Feedstock, Small-scale or home system, Large scale or commercial. Harvesting, Properties, Benefits, Uses, Operation and Maintenance, Application in India. Vermiwash Introduction, Setting up of vermiwash Unit, Composition, Use of Vermiwash, Procedure for use.

Unit IV: Organic Farming, Methods for Crop Improving and waste management in agricultural field, Compost forming, Biogas from waste, Procedure for Production of biogas and its Maintenance. Fodder for animals and recovery from waste.

Practical:

- 1) Solid waste sampling /Soil sampling
- 2) Sample Preparation (Soil/Solid Waste)
- 3) Analytical Method for analysis of sample
- 4) Estimation of Moisture content in Soil / Solid Waste/ Fertilizer
- 5) Determination of calcium in Soil / fertilizer
- 6) Estimation of NPK in soil/ fertilizer
- 7) Estimation of total carbon in soil/fertilizer
- 8) Determination of C:N ratio in Soil /Fertilizer


PRINCIPAL
Kamla Nehru Mahavidyalaya
Sakkardara Chowk, Nagpur

VERMITECHNOLOGY (VERMICOMPOSTING &
VERMICULTURE)

SYLLABUS

INDEX

- INTRODUCTION
- COMPOSTING WORMS
- METHOD OF VERMICOMPOSTING
 - Preparing the Container
 - Maintenance of Container
- IDEAL CONDITION NEEDED
- OPTIMUM ENVIRONMENTAL CONDITIONS
- p^H CONDITIONS
- FRIENDS AND FOES
- USING THE COMPOST MANURE
- PROBLEMS ENCOUNTERED DURING VERMICOMPOSTING &
REMEDEIS
- IMPORTANCE OF VERMICOMPOSTING

Kamla Nehru Mahavidyalaya, Nagpur

Department Of Botany

Certificate Course

**Topic: - Nursery Techniques With Special Reference To
Floriculture**

Proposed syllabus:-

Module 1 :- Basic Information About Nursery And Nursery Production.

Module 2 :- Nursery Management And Scope.

Module 3:- Types Of Nursery.

Module 4 :- Tools Required For Nursery Development .

Module 5:- Selection Of Plant For Nursery Development According To Type Of Nursery.

Module 6 :- Selection Of Site And Soil For Nursery.

Module 7 :- Preparation Of Nursery Beds.

Module 8 :- Propagation Of Ornamental Plants By Seeds , Bulbs, And Layering .

Module 9 :- Propagation Of Ornamental Plants By Cutting, Grafting And Budding Etc.

Module 10 :- Plant Protection Measures , Weed Control Irrigation Techniques For Plants.

Module 11:- Environment, Lay Out Manual Fertilization of Nursery.

Module 12 :- Information About Pests And Disease Of Ornamental Plant.

Module 13 :- Maintenance Of Nursery .

Module 14 ; - Packaging Of Plants For Transportation.

Module 15 :- Selling And Marketing Strategy .


PRINCIPAL

**Kamla Nehru Mahavidyalaya
Sakkardara Chowk, Nagpur**



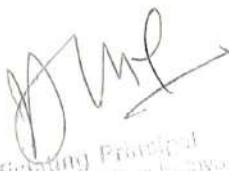
Kamla Nehru Mahavidyalaya, Nagpur

Department of Mathematics

NOTICE

All the students hereby informed that 'Certificate Course in Quantitative Aptitude' organized by Department of Mathematics ^{will} start from 23rd Sep 2019 ⁱⁿ at 9.30 am at G-3. Those who are interested, ~~to~~ submit registration form with fees 300/-. Topics to be taught

1. LCM & HCF,
2. Average,
3. Series Completion A.P. & G.P.,
4. Simplification,
5. Direction sense Test,
6. Percentage,
7. Ratio & Proportion,
8. Time & Work,
9. Problems of Ages,
10. Area Problems,
11. Time & Distance Problems,
12. Set Theory & Venn diagram,
13. Permutation & Combination
14. Probability
15. Bar diagram & Pie diagram,
16. Problems on Pattern etc.


Officiating Principal
Kamla Nehru Mahavidyalaya
Bhamburda, Nagpur

Kamla Nehru Mahavidyalaya, Sakardara, Nagpur
Electronics Department Organized Short term Certification Course
on

Embedded System Basics and 8051 Microcontroller Interfacing
(Session 2019-20)

Syllabus:

Unit 1: Embedded System Basics

Basic of Embedded System, Characteristics of Embedded System, basic building blocks of Embedded System, Difference Between microprocessor and microcontroller and basics about different types of microcontrollers available.

Unit 2: Basics of 8051 microcontroller

Basics of 8051 microcontroller, pin architecture of 8051 microcontroller, basic circuit requirement of 8051 microcontroller and Internal and external memory architecture of 8051 Microcontroller.

Unit 2: Programing in 8051

Programing architecture and structure of 8051 microcontroller, discuss about addressing modes, Instruction formats and Instruction Set of 8051 microcontroller. Discuss about how to interface peripherals with the 8051 microcontroller

Unit 3: Interfacing with 8051

How to interface array of 8 LEDs (Light Emitting Diode) with 8051 microcontroller and develop drivers for it. interfacing SSD (Seven Segment Display) in simple way as well as multiplexed way with the 8051 microcontroller and develop drivers for it. Interfacing alphanumeric 16 x 2 LCD (Liquid Crystal Display) in 8 bit mode with the 8051 microcontroller and develop drivers for it. Interfacing keys as well as Hexadecimal Key-Pad with the 8051 microcontroller and driver develop for it.

Unit 4: Serial Bus in 8051

Connecting Computer (PC) with 8051 microcontroller through RS 232 cable using UART (Universal Asynchronous Receiver and Transmitter) and driver develop for it. Discuss about Serial Protocols which are ready to connect with microcontrollers and what is I²C (Intra Integrated Circuit) Bus and features and characteristics of I²C Protocol. Interfacing RTC (Real Time Clock) with 8051 microcontroller using I²C Protocol and develop driver for it.

Kamla Nehru Mahavidyalaya
Department of Cosmetic Technology
Certificate Course in Beautification
Session 2019-20
Syllabus

Theory

1. Skin Care

Basic skin care, skin types, daily skin care routine

2. Hair Care – Basic hair structure, types of hairs, hair care routine,

- Hair cleansing
- Oiling
- Shampooing
- Conditioning

3. Health care and Yoga

- Diet and nutrition
- Beauty nutrients
- Exercise and Yoga
- Relaxation
- Personal Hygiene

Practical

1. Make up techniques

- Preparing face for Make up
- Eye Make up
- Hairstyle
- Bridal Make up
- Party Make up
- Day Make up
- Day makeup




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Kamla Nehru Mahavidyalaya
Sakkardara Chowk, Nagpur



H. O. D.
Cosmetic Technology
Kamla Nehru Mahavidyalaya,
Sakkardara Square, Nagpur

DEPARTMENT OF MICROBIOLOGY

KAMLA NEHRU MAHAVIDYALAYA

CERTIFICATE COURSE IN COOKERY AND FOOD PRESERVATION

SYLLABUS

OBJECTIVES :

- To impart students with basic knowledge relating to food safety and principle of preservations.
- To introduce them to the concept of processing and preservation of fruits and vegetables.

SYLLABUS

SR.NO.	CONTENT	NO.OF LECTURES
1.	UNIT I PURPOSE AND SCOPE OF PRESERVATION <ul style="list-style-type: none">• Objectives of preservation and processing.• Scope of preservation industry in India.	5

Syllabus.

2.	<p>UNIT II</p> <p>FRUITS AND VEGETABLE PROCESSING</p> <p>SAUCES AND BEVERAGES</p> <p>A.CHUTNEY AND SAUCES</p> <ul style="list-style-type: none"> • Definition, • Method of preservation, • Steps in preservation of chutney, • Steps in preservation of sauces. <p>B.FRUIT BEVERAGES</p> <ul style="list-style-type: none"> • Definition and classification • Method of preservation, • Pasteurization, • Use of chemical preservatives, • Role of other ingredients. 	13
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3.	<p>UNIT III</p> <p>PRINCIPLE AND METHOD OF PRESERVATION</p> <ul style="list-style-type: none"> • Asepsis • Use of low temperature. • Use of high temperature. • Removal of moisture. • Removal of air. • Use of chemical preservatives. • Fermentation. • Eradiation. • Gas preservation. 	12
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4.	UNIT IV POST HARVEST CHANGES AND SPOILAGE <ul style="list-style-type: none"> * Physical chemical and microbiological changes in fruits and vegetables. * Factors affecting growth of microorganisms and the control measures. 	10
5.	UNIT V FOOD SAFETY <ul style="list-style-type: none"> • Key Terms, Factors affecting food safety, Recent concern. • Food laws, standards and regulations. • Food additives and contaminants. • Hygiene and Sanitation. • HACCP. 	20

PRACTICALS

OBJECTIVES

- To familiarise the students with preserved fruit and vegetable product in the market
- To equip them with skills required for preservation, packaging and evaluation of fruit beverages, ketchup, sauce and chutney.

Practicals :

1. Sterilization of bottles.
2. Market survey of preserved fruit and vegetable products.
3. Preparation, packaging, sensoring/objectives evaluation and costing of :

- **Sauces** : chilly sauce and tomato sauce.
- **Ketchup** : tomato ketchup
- **Chutney** : tomato and imli chutney
- **Squash** : lemon, orange and pineapple.
- **Serup** : rose, almond serup.

4. Preparation of labels for preserved food.

Outcome :

Job placements in dairy, quality control and food industries .



Principal

Kamla Nehru Mahavidyalaya
Sakkardara Chowk, Nagpur

KAMLA NEHRU MAHAVIDYALYA
Department of Music

Skill Based Certificate Course

Session 2019-20

Syllabus (Garba)

- **Definition of Garba**
- **Information of Garba**
- **Type of Garba**
 - 1) Sanedo
 - 2) Kondoliya
 - 3) Chichoda
 - 4) Chakada
- **Tal of Garba**
 - 1) Dadara
 - 2) Tintaal

Pratik



Kamla Nehru Mahavidyalaya, Nagpur

Affiliated to RIM Nagpur University, Nagpur, Recognised by State Government

Revised Curriculum Framework for School Education (2020)



DEPARTMENT OF COMMERCE

CERTIFICATE COURSE IN MARKETING MANAGEMENT

SESSION :- 2019-2020

SYLLABUS

Sr. No.	Particulars	Duration
1	Marketing:- Meaning of Marketing, Concepts of Marketing, Scope of Marketing, Main Components of Modern concept of Marketing, Difference between New and Old Concept of Marketing, Marketing Tasks.	7 Days
2	Marketing Research:- Meaning of Marketing Research, scope of marketing research, Importance and benefits of marketing research, Procedure of marketing research. Market segmentation:- Market segmentation, Criteria for successful segmentation, Bases for Segmentation, Target Marketing.	9 Days
3	Product Decision:- Product Mix, Product Life Cycle, New product development. Pricing Decision:- Pricing strategies or methods.	7 Days
4	Digital Marketing:- Meaning of digital marketing, Concept of digital marketing, Types of digital marketing, 5 R's of digital marketing. Experiential Learning: Visit on VR MALL, Medical Square Nagpur.	7 Days

