Kamla Nehru Mahavidyalaya, Nagpur

QLM 1.3.1

SYLLABUS OF VALUE ADDED/ CERTIFICATE PROGRAM OFFERED

Session 2019-20

Syllabus

Module I

Introduction to different methodology of composting, fertilizer: its classification and manufacturing processes, biofertilizers and their advantages, Plant growth regulators

Module II

Introduction and scope of Plant tissue culture(PTC), Instrumentation, Media preparation & sterilization, Explant isolation and callus induction in different growth regulators combination, organogenesis and somatic embryogenesis, cytology of callus, suspension culture and production of secondary metabolites

Module III

Micropropogation, Embryo culture, Production of haploid through anther/Pollen, ovuleo embryo culture, Protoplast isolation and culture, Invitro plant regeneration, Hardening, establishment

Module IV

Development of transgenic plant by Agrobacterium mediated transformation. Isolation of genomic DNA, plasmid isolation, RFLP technique

PRACTICALS

1. Biofertilizer and its application.
2. Manufacturing and processing of Biofertilizer.
3. Different types of Biofertilizer.
4. Preparation of plant tissue media, sterilization- Instrumentation.
5. Isolation of different types of ex-plants.
6. Induction of callus culture.
7. Shoot tip culture technique.
8. Anther culture technique.
9. DNA isolation.
10. RFLP technique.

Value Added Program on
Language and Ethics while using Social Media Platform
2021-2022
Coordinator – Prof. Shruti Takone

Sr No	Topic	Date	Time
1.	Introduction of Social Media	11 Aug 2021	10.15
2.	Types of Social Media	12 Aug 2021	10.15
3.	How Social Media is important	13 Aug 2021	10.15
4.	Are Social Media platforms safe to use	14 Aug 2021	10.15
5.	What are the laws about Social Media	17 Aug 2021	10.15
6.	How can I be safer online	18 Aug 2021	10.15
7.	Ethics of Social Media : i)Transparency ii) Respect	20 Aug 2021	10.15
8.	Ethics of Social Media : iii)Responsibility iv)Authenticity v) Accountability	21 Aug 2021	10.15
9.	Social Media Language	23 Aug 2021	10.15
10.	The impact of Social Media language on the current generation	24 Aug 2021	10.15
11.	How Social Media language create a sense of community	25 Aug 2021	10.15
12.	Use of Social Media language in Political discourse	26 Aug 2021	10.15
13.	Influence of Social Media language on mental health	27 Aug 2021	10.15
14.	Ethics of Social Media	28 Aug 2021	10.15
15.	Using the right email or testing services	30 Aug 2021	10.15
16.	Oversharing client information in online forums when requesting referrals	31 Aug 2021	10.15
17.	Messy Email	01 Sept 2021	10.15
18.	Texting boundaries	02 Sept 2021	10.15
19.	Using client reviews on websites	03 sept2021	10.15
20.	Ethics and the Five Deadly Sins of Social Media : i) Unreported Endorsements ii) Improper Anonymity iii) Compromising Consumer Privacy	04 Sept 2021	10.15
21.	iv) Overly Enthusiastic Employees v) Using the online community for free work	06 Sept 2021	10.15
22.	Social Media ethics in the work place	07 Sept 2021	10.15
23.	Cyberbullying	08 Sept 2021	10.15
24.	Stereotypes and Biases	09 Sept 2021	10.15
25.	Digital Detox	13 Sept 2021	10.15
26.	Digital footprint	14 Sept 2021	10.15
27.	The harm of hate speech	15 Sept 2021	10.15
28.	How Social Media can shape our identities	16 Sept 2021	10.15
29.	The impact of Social Media on Online Education	17 Sept 2021	10.15
30.	How to use Social Media for learning	18 Sept 2021	10.15

HOD
Department of English
Kamla Nehru Mahavidyalaya,
Nagpur

PRINCIPAL
Kamla Nehru Mahavidyalaya
Sakkardara Chowk, Nagpur

Department of Zoology
2019-20

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 Mathematics

NOTICE

All the students hereby informed that **'Certificate Course in Quantitative Aptitude'** organized by Department of Mathematics, will start from 23rd Sep 2019 at 9.30 am in 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
Sakkardara Square, Nagpur

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, Ablebto 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

Kamla Nehru Mahavidyalaya, Sakkardara, 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 I^2C (Intra Integrated Circuit) Bus and features and characteristics of I^2C Protocol. Interfacing RTC (Real Time Clock) with 8051 microcontroller using I^2C 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

KAMLA NEHRU MAHAVIDYALAYA NAGPUR

PRINCIPAL
Kamla Nehru Mahavidyalaya
Sakkardara Chowk, Nagpur

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

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

Head of the Dept.
Kamla Nehru Mahavidyalaya

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 priniciple 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 • Objectives of preservation and processing. • Scope of preservation industry in India.	5

2.	**UNIT II** **FRUITS AND VEGETABLE PROCESSING** **SAUCES AND BEVERAGES** **A.CHUTNEY AND SAUCES** • Definition. • Method of preservation. • Steps in preservation of chutney. • Steps in preservation of sauces. **B.FRUIT BEVERAGES** • Definition and classification • Method of preservation. • Pasteurization. • Use of chemical preservatives. • Role of other ingredients.	13

3.	**UNIT III** **PRINCIPLE AND METHOD OF PRESERVATION** • Asepsis • Use of low temperature. • Use of high temperature. • Removal of moisture. • Removal of air. • Use of chemical preservatives. • Fermentation. • Eradiation. • Gas preservation.	12

4.	**UNIT IV** **POST HARVEST CHANGES AND SPOILAGE** * Physical chemical and microbiological changes in fruits and vegetables. * Factors affecting growth of microorganisms and the control measures.	10
5.	**UNIT V** **FOOD SAFETY** • 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 familarise 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 evalution 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

'Maintenance and Repairing of Domestic Appliances'

Total -30 Hours (2 Credits)

Paper - I

Basic Electrical Engineering and Safety Precautions

Total periods: 08 Max Marks: 30

Major Topics

Sr. No.	Topic	No. Of Periods Alloted
1.	Basic Electrical Engineering	06
2.	Safety Precautions: First Aid	02
	Total	08

Syllabus content:

Basic Electrical Engineering

1.1 OHM's Law: Electric current - conductors - insulators Semi-conductors-Electric potential-Resistance-Ohm's Law - Resistances in series and parallel simple problem.

1.2 Work-power-Energy: Definitions of work, power & energy simple problems on power & energy, DC, A.C. power

1.3 Cells: primary cells - secondary cells - lead acid cell construction and working - efficiencies of cells defects in cells - charging methods - maintenance.

Safety Precautions: First Aid

Precaution to be taken at various stages, while handling tools during wiring- electric fire-precautions against shocks-first aid artificial respiration.

Lab - I

Electrical Lab

Practical No. 01 Max Marks: 20

Total Periods 07

1. Measurement of power of a Appliance / Circuit
2. Testing and charging of cells
3. To Verify Ohm's Law
4. Connecting, starting of running and reversing of a 1-Q capacitor motor.

Paper - II

Domestic Appliances

Total periods: 08 Max Marks: 30

Major Topics

Sr. No.	Topic	No. Of Periods Allotted
1.	Heating Appliances	04
2.	Motorise and Other Appliances	04
	Total	08

Syllabus content:

Heating Appliances:

Electric Iron - Electric Stove - Immersion coater Heater Geyser –Table lamp - Testing & Repairing. A.C. Motor Winding

Motorised Appliances:

Electric Fans (Ceiling Fan, Table Fan, Pedastal Fan etc.) Electric Mixer - coat Grainders - Coashing Machine - vacuum cleaner – Electric Hand drill - Domestic water pump sets : Installation, Testing, Servicing and Repairing of above Mentioned Appliances.

Other Appliances:

Installation, Testing, Servicing and Repairing of Emergency Light –Invertors.

Lab - II

Domestic Appliances Lab

Practical No. 02

Total Periods 07 Max Marks: 20

1. Testing of various Domestic Appliances mentioned in the Theory Subject - II
2. Dismantling of various Domestic Appliances mentioned

SR, NO.	TOPICS	NO.OF LECTURES.
1.	**PATHOLOGY** • INTRODUCTION • HUMAN BLOOD GROUP ANTIGEN • ABO BLOOD GROUP SYSTEM AND INCOMPATIBILITY • Rh BLOOD GROUP AND INCOMPATIBILITY ANTIGEN COAGULANT **PRACTICAL** • ABO BLOOD GROUP SLIDE TECHNIQUE AND CROSS MATCHING	3
2.	**CLINICAL PATHOLOGY** • INTRODUCTION **PRACTICAL** • URINE ANALYSIS PHYSICAL CHEMICAL • MICROSCOPIC • SUGAR ALBUMIN , BILE SALT	3
3.	**HEAMATOLOGY** • ESTIMATION OF HAEMOGLOBIN • HEAMOCYTOMETER (SAHLIS METHOD) • SERUM/PLASMA(CENTRIFUGATION) **PRACTICAL** • TLC • DLC	3
4.	**MICROBIOLOGY** • HISTORY • MICROBES AND THEIR CLASSIFICATION • STUDY OF MICROSCOPE • CULTURE AND IDENTIFICATION • STERILIZATION AND DISINFECTION **PRACTICAL** • COMMAN LABORATORY EQUIPMENT AND USES • MICROSCOPE • INCUBATOR • HOT AIR OVEN AUTOCLAVE • ANAROBIC CULTURE INOCULATION TECHNIQUES.	6
5.	**CLINICAL MICROBIOLOGY** • NORMAL FLORA OF HUMAN BODY • SEPTICEMIA • PYAEMIA • FOOD POISONING • OPPORTUNISTIC INFECTION	6

	PRACTICAL • STAINING TECHNIQUE • SIMPLE STAIN • GRAM STAIN • ACID FAST STAINING • ANTIBIOTIC SENSITIVITY	
6.	**BIOCHEMISTRY** • CARBOHYDRATE FATS AMINO ACID AND PROTEINS **PRACTICAL** • TEST FOR CARBOHYDRATE • TEST FOR PROTEINS AND AMINO ACID	3
7.	**IMMUNOLOGY** • IMMUNITY • ANTIGEN AND ANTIBODY • TYPES OF IMMUNITY • ANTIGEN ANTIBODY REACTION **PRACTICAL** • SEROLOGY • WIDAL TEST • VDRL TEST • AGGLUTINATION TEST • ELISA TEST	3
8.	**PARASITOLOGY** • STUDY OF PARASITE **PRACTICAL** • DETECRION OF ANTIGEN/ANTIBODY FOR MALARIA PARASITE	3

KAMLA NEHRU MAHAVIDYALYA
Department of Music

Skill Based Certificate Courese

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

Kamla Nehru Mahavidyalaya, Nagpur
Affiliated to RTM Nagpur University, Nagpur, Recognised by State Government

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

KAMLA NEHRU MAHAVIDYALAYA ★ NAGPUR ★