



RAYATSHIKSHANSANSTHA'S

RAJARSHICHHATRAPATISHAHU COLLEGE, KOLHAPUR

2020-21

CERTIFICATES COURSE IN BIODIVERSITY CONSERVATION

Name of the Department : Department of Botany

Course Name : Certificates Course in Biodiversity Conservation.

Course Coordinator Name &

Contact Number : Mr.Gojare S M, 9890593483

Duration :6 Months

Course Fee : Rs-300

Eligibility :12" passed students are eligible to take admission

Minimum intake Capacity : -20

SYLLABUS :

PAPER 1

FUNDAMENTALS OF BIODIVERSITY

UNIT	TOPIC
UNIT I	ORIGIN OF LIFE
	1.1) Position of different organisms in living world. Differentiation

	between prokaryotic and eukaryotic cell. 1.2) Brief introduction to five kingdom classification system.
UNIT II	CONCEPT OF EVOLUTION
	1.1) Theories of evolution, Darwinism, Concept of species formation. Phylogeny
UNIT III	TAXONOMY AND CLASSIFICATION
	1.1) Introduction to major groups of plants. 1.2) Introduction to major groups of animals and microbes.
UNIT IV	LOSS OF BIODIVERSITY
	4.1) Causes of loss of Biodiversity. 4.2) Effects of loss of Biodiversity. 4.3) Terminology- Red data book-concept.

SECTION I

SECTION II

UNIT	TOPIC
UNIT I	BIODIVERSITY INTRODUCTION, CONCEPT AND SIGNIFICANCE
UNIT II	LEVELS OF BIODIVERSITY
	2.1-Mega diversity in India 2.2-Bioreserves 2.3 Hot spots in India with special reference to Himalaya and Western Ghat (Maharashtra) 2.4-National parks, wildlife sanctuaries Botanical gardens and Zoological museums.

EXAMINATION PATTERN -

Theory paper I

-100 marks

Practical-projects

- work experience

OBJECTIVE:

The objective of this scheme is to introduce career and market skill enhancing add-on courses that have utility for job, self-employment and empowerment of the students

UNDERSTANDING OF BASIC ELECTRONICS

Name of the Department	: Physics
Course Name	: Understanding of Basic Electronics
Course coordinator name	: Dr.V.V.Killedar
Contact number	: 9860659959
Course duration	: 30 Hours
Course fee:Rs.300/-	
Eligibility	: B.Sc.III Physics Students
Minimum intake capacity	: 15

OBJECTIVES:

1. To provide basic knowledge of electronic components so that students will understand the working of electronic components.
2. To develop practical skill related with electronics and electronic circuits.
3. To provide job opportunity or self-employment to the students.

LEARNING OUTCOMES:

1. Student acquires the basic knowledge of electronic components and understand the working of electronic components.
2. A student gets the practical skill of electronic circuits.

3. Students gets job opportunity or he can do its own business.

CERTIFICATE COURSE IN PREPARATION OF HOUSEHOLD CHEMICALS

Name of Course	: Certificate Course In Preparation Of Household Chemicals
Name of the Department	: Chemistry
Course Established Year	: 2016-17
Duration	: 3 Months
Course Fee	: 300
Eligibility	: 12th std. pass

OBJECTIVE:

1. To make availability of self-employment
2. To develop confidence for doing job. 3. To develop skills required for job
4. To develop skills of market survey 5. To develop knowledge of domestic chemicals
- 6 To develop skill of subject knowledge on applied basis

PAPER-I: - BASIC CONCEPT OF HOUSEHOLD CHEMICALS [30 MARKS]

UNIT I	<i>Basic Concepts in Domestic chemicals</i>
	1.1 Mole concepts 1.2 Concentration 1.3 Units of concentration 1.4 Normality 15 Molarity 1.6 Molality 1.7 Mole Fraction 1.8 Percentage composition by volume 1.9 Percentage composition hv weight

UNIT II	<i>Domestic chemicals</i>
	1.10 Introduction of House chemicals or domestic chemicals and their s 1.11 Sanitary acids 1.12 Phenyl 1.13 Liquid soaps, Lysol, Dettol, Savalon 1.14 Acids bases 1.15 General introduction 1.16 Theory 1.17 Types and Strength of acids 1.18 Cleaning action of acids and Handling and precautions 1.19 Antiseptic and Disinfectant
UNIT III	<i>Titration</i>
	3.1 General introduction 3.2 Types of titration 3.3 Indicators(Artificial and Natural) 3.4 Theory and types.

PAPER-II :- MECHANISM, PRECAUTION AND CLEANING ACTION OF HOUSEHOLD CHEMICALS [30 MARKS]

UNIT I	<i>Soaps and detergents</i>
	1.1 Introduction of Soaps 1.2 Theory and types 1.3. Raw materials 1.4 Types of soaps 1.5 Manufacture of soaps, Hot Process 1.6 Cleaning action of soaps 1.7 Introduction of Detergents 1.8 Raw materials 1.9 Types of detergentneutralationic, anionic, amphoteric and neutral 1.10 Preparation of teepol and dersphat

	1.11 Comparison between soaps and detergents
UNIT II	<i>Phenols</i>
	2.1 Introduction of Phenol 05 Marks 2.2 Methods of synthesis of Phenols 2.3 Physical properties 2.4 Chemical properties 2.5 Uses
	<i>Phenyl</i>
	3.1 Preparation 3.2 Ingredients and uses 3.3 Advantage and drawback of phenyl

PAPER-III:- PRACTICAL'S

[40 MARKS]

- 1) Volumetric titration
- 2) Conduct metric titration
- 3) Preparation of standard solutions
- 4) Preparation of phenyls
- 5) Preparation of dyes
- 6) Preparation of Soap
- 7) Preparation of Detergent Powder
- 8) Preparation of Liquid Soap
- 9) Preparation of Neel
- 10) Preparation and uses of Natural Indicators