

M. Sc. ENVIRONMENTAL SCIENCE Semester II												
Course Category	Code	Theory / Practical	Teaching scheme (Hours / Week)				Examination Scheme					
			Theory	Practical	Total	Credits	Duration in hrs.	Max. Marks		Total Marks	Minimum Passing Marks	
								SEE	CIE		Theory	Practical
DSC	MES2T05	Paper 5: Industrial Safety, Hygiene and Occupational Health	4	-	4	4	3	80	20	100	40	-
DSC	MES2T06	Paper 6: Analytical Techniques for Environmental Monitoring	4	-	4	4	3	80	20	100	40	-
DSE	MES2T07	Paper 7: Electives (Choose any one) (a) Environmental Impact Assessment and Environmental Audit (b) Water Supply and Resources	4	-	4	4	3	80	20	100	40	-
OJT	MES2P03	Practical 3: On Job Training/ Field Project	-	8	8	4	3-8*	50	50	100	-	50
DSC	MES2P04	Practical 4: Industrial Safety, Hygiene and Occupational Health	-	6	6	3	3-8*	50	50	100	-	50
DSC	MES2P05	Practical 5: Analytical Techniques for Environmental Monitoring	-	6	6	3	3-8*	50	50	100	-	50
TOTAL			12	20	32	22	-	390	210	600	120	150

CIE = Continuous Internal Evaluation and SEE = Semester End Examination

Dr. S.L. Pal
BSRabask
P. Hestnam

Nsouble
Principal
 Sevadal Mahila Mahavidyalaya
 Umrer Road, Nagpur.

M. Sc. ENVIRONMENTAL SCIENCE Semester III

Course Category	Code	Theory / Practical	Teaching scheme (Hours / Week)			Credits	Examination Scheme					
			Theory	Practical	Total		Duration in hrs.	Max. Marks		Total Marks	Minimum Passing Marks	
								SEE	CIE		Theory	Practical
DSC	MES3T08	Paper 8: Physicochemical Treatment of Water and Waste Water Treatment	4	-	4	4	3	80	20	100	40	-
DSC	MES3T09	Paper 9: Biological Process in Waste Water Treatment	4	-	4	4	3	80	20	100	40	-
DSC	MES3T10	Paper 10: Advanced Waste Water Treatment	4	-	4	4	3	80	20	100	40	-
DSE	MES3T11	Paper 11: Elective (Choose any one) (a) Environmental Conservation and Sustainable Development (b) Disaster Management	4	-	4	4	3	80	20	100	40	-
DSE	MES3P06	Practical 6: Based on Elective subject	-	4	4	2	3-8*	50	50	100	-	50
RP	MES3P07	Research Project (RP)	-	8	8	4	3-8*	50	50	100	-	50
TOTAL			16	12	28	22	-	420	180	600	160	100

CIE = Continuous Internal Evaluation and SEE = Semester End Examination

Pal
(M.S.L. Pal)

[Signature]

B. S. Patil
P. Meshram

Nawale


Principal
Sevadal Mahila Mahavidyalaya
Umrer Road, Nagpur.


M. Sc. ENVIRONMENTAL SCIENCE Semester IV												
Course Category	Code	Theory / Practical	Teaching scheme (Hours / Week)				Examination Scheme					
			Theory	Practical	Total	Credits	Duration in hrs.	Max. Marks		Total Marks	Minimum Passing Marks	
								SEE	CIE		Theory	Practical
DSC	MES 4T12	Paper 12: Advanced Pollution Control Technology	4	-	4	4	3	80	20	100	40	-
DSC	MES 4T13	Paper 13: Climate Change and its consequences	4	-	4	4	3	80	20	100	40	-
DSC	MES 4T14	Paper 14: Remote Sensing, GIS and Computer Applications	4	-	4	4	3	80	20	100	40	-
DSE	MES 4T15	Paper 15: Elective (Choose any one) (a) Biomedical and Hazardous Waste Management (b) Environmental Geosciences	4	-	4	4	3	80	20	100	40	-
RP	MES 4P08	Research Project (RP)	-	12	12	6	3-8*	100	100	200	-	100
		TOTAL	16	12	28	22	-	420	180	600	160	100

CIE = Continuous Internal Evaluation and SEE = Semester End Examination


(Dr. S. L. Pal)


B. S. Patil


P. L. Meshram


N. D. Duble

Principal
Sevada Mahila Mahavidyalaya
Umrer Road, Nagpur.

Semester-III
Practical-V

(Physico- Chemical Treatment and Biological Process in Waste Water Treatment)

1. Determination of Sludge Volume Index (SVI) and Sludge Density Index (SDI) of sludge samples.
2. Estimation of Nitrogen by Kjeldahl's methods waste water.
3. Estimation of Phosphate in sludge for fertilities values.
4. Estimation of Sulphate in sludge for fertilities values.
5. Estimation of Chemical Oxygen Demands (COD) of waste water.
6. Estimation of Biochemical Oxygen Demands (BOD) of waste water.
7. Determination of percent organic matter of sludge.
8. Estimation of fixed solids, organic matter of sludge drying bed's sludge cake.
9. Estimation of suspended, dissolved, total, volatiles solids in sewage.
10. Determination of Chloride in wastewater samples by Argentometric method.
11. Estimation of calorific value of sludge by Bomb calorimeter.
12. Draw Schematic Lay-out of wastewater treatment plant.
13. Estimation of sulphide in waste water.
14. Determination of wind velocity and direction by Anemometer.
15. Determination of relative humidity by psychrometer.
16. Study of sewage treatment plant with respect to:
 - a) Flow measurement.
 - b) Design of screen, grit chamber, aeration tank, anaerobic digesters, settling units and filtration unit.

Visit to:

- Sewage Treatment Plant
- Industrial Waste Water Treatment Plant

Case Studies:

- Submission of case Study of Sewage Treatment Plant & Industrial Waste Water Treatment Plant.

Distribution of Marks

Practical SEE (PU)	- 50 marks
Practical CIE (PI)	- 50 marks
Research Project SEE	- 50 marks
Research Project CIE	- 50 marks

Total Marks	- 200 marks

Naubli
Principal
Sevadal Mahila Mahavidyalaya
Umrer Road, Nagpur.

Semester-IV
Paper-IV (Elective-II)
Climate Change and Its consequences

Unit-I:

Fundamentals of Climate Change: Introduction to climate change. Climate & weather, Greenhouse gases, source and effect, human contribution to climate change, Global scientific opinion, diminishing carbon sink, carbon sequestration.

Climate Change Impact: Observed changes in the climate since the industrial revolution, Future trends and impacts of climate change on surface temperature, precipitation, ocean pH, sea-level and Arctic sea-ice extent.

Economics of Climate Change: Effect of climate change in global and Indian economy, climate damages, mitigation cost, National & international climate change finance.

Unit-II:

International Scenario: Overview of international legal and policy framework to address climate change, brief history of International climate change negotiations, United Nations Framework Convention on Climate Change (UNFCCC) and its key provisions, Organizational structure and different party groups under the convention.

Basic Group Countries: Formation of basic Group- back ground and way forward, concerns of BASIC countries, Gains and losses of Kyoto Protocol.

Paris Agreement- Aims and objectives, associated bodies, Key commitments by Parties, Key issues under negotiation, India's commitment in Paris agreement and status so far, Case studies of meetings of Conference of Parties (COP),SDG's and India's take on meeting the SDG's.

Unit-III:

Climate Change Adaptation: Basic concept of climate change adaptation, measuring vulnerability, adaptation solutions and planned response.

Consequences of Climate Change: Consequences on key sectors, adaptation measures for various vulnerable sectors, linkages between climate change adaptation and development, important international adaptation initiatives and programmes.

Climate Change Mitigations: Aims and objectives, Political context to greenhouse gas emissions, integration of mitigation into development planning, international mechanisms for planning and implementing mitigation actions, Computer modelling for future projections, India's policy structure related to GHG mitigations.

Unit-IV: Planning Process of Climate Change: Introduction to climate change planning, the role of national & sectoral institutions. Methodology for preparing a low-emission climate resilient development strategy, international initiatives to support climate change planning, key emitters, strategies to bring down emissions, mitigation targets per country.

National Action Plan on Climate Change (NAPCC): Aims and objectives, principles, national solar mission, mission on sustainable habitat, sustaining the Himalayan eco-system,

water mission, managing climate change agenda, current carbon dioxide emission status, Introductions of labelling program for appliances.

Clean Air Initiatives: Non-attainment cities of India, Air Quality Index, GHG mitigation in power generation, supercritical technologies, integrated gasification combined cycle (IGCC), natural gas-based power plants, efficient transmission and distribution, Majhi Vasundhara Abhiyan.

Books for Reference:

1. Atlas of Our Changing Environment – United Nations Environment Programme-2005
2. Earth: Making a Life on a Tough New Planet -Bill McKibben-2010.
3. Our Choice: A Plan to Solve the Climate Crisis-Al Gore-2009.
4. Surviving the Century: Facing Climate Chaos and Other Global Challenges-Herbert Girardet-2007.
5. Climate Code Red: The Case for Emergency Action-David Spratt and Philip Sutton-2008.
6. Climate Change: Meeting the Challenge – K R Gupta – 2010
7. The Climate Solution: India's Climate Change Crisis and What We Can Do About It-Mridula Ramesh – 2018
8. The Great Derangement: Climate Change and the Unthinkable-Amitav Ghosh – 2018
9. Climate Change in India: Sulagna Chattopadhyay – 2013.
10. National Action Plan on Climate Change, Govt of India.
11. Climate Changed: A Personal Journey Through the Science-Philippe Squarzoni-2014

Distribution of Marks

Research Project SEE - 100 marks

Research Project CIE - 100 marks

Total Marks - 200 marks

N. S. W. B.
Principal
Sevadal Mahila Mahavidyalaya
Umrer Road, Nagpur.

BOTANY

Semester II

S N	Course Category	Name of Course	Course Code	Teaching Scheme (hrs.)			Total (Hrs.)	Total Cred it	Examination Scheme								
				Th	TU	P			Theory			Practical					
									Exam Hrs.	SEE	CIE	Min	SEE	CIE	Min		
1	DSC	Cytology and Genetics	MBO2T05	4	-	-	4	4	3	80	20	40	-	-	-		
2	DSC	Plant Physiology and Biochemistry	MBO2T06	4	-	-	4	4	3	80	20	40	-	-	-		
3	DSE	Elective 2 (Choose any one) 1. Cell Biology 2. Equivalent online course	MBO2T07	4	-	-	4	4	3	80	20	40	-	-	-		
4	OJT	OJT	MOJ2P01	-	-	8	8	4	3-8*	-	-	-	50	50	50		
5	LAB 1	Plant Physiology, Molecular Biology, Plant Biotechnology, Plant Breeding	MBO2P03	-	-	6	6	3	2-6*	-	-	-	50	50	50		
6	LAB 2	Plant Development, Reproduction, Taxonomy, Ecology	MBO2P04	-	-	6	6	3	2-6*	-	-	-	50	50	50		
Total				12	-	20	32	22		240	60	120	150	150	150		
Marks of Theory Component= 300									Marks of Practical Component= 300			TOTAL =600Min. Passing: 150+150=300					

Sm

Nawabk

Principal
Sevadal Mahila Mahavidyalaya
Umrer Road, Nagpur.

~~BOTANY~~
BOTANY

Semester III

S N	Cour se Cate gory	Name of Course	Course Code	Teaching Scheme (hrs.)			Total (Hrs.)	Total Credi t	Examination Scheme						
				Th	TU	P			Theory				Practical		
									Exam Hrs.	SEE	CIE	Min	SEE	CIE	Min
1	DSC	Development and Reproduction	MBO3T08	4	-	-	4	4	3	80	20	40	-	-	-
2	DSC	Angiosperms- I	MBO3T09	4	-	-	4	4	3	80	20	40	-	-	-
3	DSC	Plant Ecology and Conservation Biology	MBO3T10	4	-	-	4	4	3	80	20	40	-	-	-
4	DSE	Elective 3 (Choose any one) 1. Molecular Biology and Plant Biotechnology-I 2. Mycology and Plant Pathology-I 3. Plant Physiology-I 4. Reproductive Biology of Angiosperms 5. Palaeobotany-I 6. Palynology-I 7. Ethnobotany-I 8. Advanced Phycology and Hydrobiology-I	MBO3T11	4	-	-	4	4	3	80	20	40	-	-	-
5	LAB	On electives	MBO3P05	-	-	4	4	2	-	-	-	-	50	50	50
6	RP	Research Project/ Dissertation (Core)	MRP3P01	-	-	8	8	4	-	-	-	-	50	50	50
Total				16	-	12	28	22		320	80	160	100	100	100
Marks of Theory Component= 400 Marks of Practical Component= 200 TOTAL =600 Min. Passing: 200+100=300															

Sm →

Neelika
Principal
Sevadal Mahila Mahavidyalaya
Umrer Road, Nagpur.

BOTANY

Semester IV

S N	Course Category	Name of Course	Course Code	Teaching Scheme (hrs.)			Total Cred it	Total Cred it	Examination Scheme						
				Th	TU	P			Total (Hr s)	Theory			Practical		
										Exam Hrs.	SEE	CIE	Min	SEE	CIE
1	DSC	Angiosperms II	MBO4T12	4	-	-	4	4	3	80	20	40	-	-	-
2	DSC	Molecular Biology	MBO4T13	4	-	-	4	4	3	80	20	40	-	-	-
3	DSC	Plant Biotechnology and Plant Breeding	MBO4T14	4	-	-	4	4	3	80	20	40	-	-	-
4	DSE	Elective 4 (Choose any one) 1. Molecular Biology and Plant Biotechnology-II 2. Mycology and Plant Pathology-II 3. Plant Physiology- II 4. Reproductive Biology of Angiosperms-II 5.. Palaeobotany-II 6. Palynology-II 7. Ethnobotany-II 8. Advanced Phycology and Hydrobiology-II	MBO4T15	4	-	-	4	4	3	80	20	40	-	-	-
5	RP	Research Project / Dissertation (Core)	MRP4P02	-	-	12	12	6	-	-	-	-	100	100	100
Total				16	-	12	28	22		320	80	160	100	100	100

Marks of Theory Component= 400 Marks of Project Component= 200 TOTAL =600Min.Passing: 200+100=300

2 Years-4 Sem. PG Degree (88 credits) after Three Year UG Degree or
1 Year-2 Sem PG Degree (44 credits) after Four Year UG Degree

Total Credits for Four Semesters (Two Year Course): 4 * 22 = 88

Total Marks for Four Semesters (Two Year Course): 4 * 600 = 2400

Signature

Mawbi

Principal
Sevadal Mahila Mahavidyalaya
Umrer Road, Nagpur.

M. Sc. CHEMISTRY Semester II

Course Category	Code	Theory / Practical	Teaching scheme (Hours / Week)				Examination Scheme					
			Theory	Practical	Total	Credits	Duration in hrs.	Max. Marks		Total Marks	Minimum Passing Marks	
								SEE	CIE		Theory	Practical
DSC	MCH2T05	Paper 5: Organic Chemistry	4	-	4	4	3	80	20	100	40	-
DSC	MCH2T06	Paper 6: Analytical Chemistry	4	-	4	4	3	80	20	100	40	-
DSE	MCH2T07	Paper 7: Electives (Choose any one) (a) Solid state and organometallic chemistry (b) Organic Reaction Mechanism (c) Quantum, Statistical and Nuclear Chemistry (d) Instrumental Methods of Analysis (e) Equivalent MOOC course	4	-	4	4	3	80	20	100	40	-
OJT	MCH2P03	Practical 3: On Job Training/ Field Project	-	8	8	4	3-8	50	50	100	-	50
DSC	MCH2P04	Practical 4: Organic Chemistry	-	6	6	3	3-8	50	50	100	-	50
DSC	MCH2P05	Practical 5: Analytical Chemistry	-	6	6	3	3-8	50	50	100	-	50
TOTAL			12	20	32	22	-	390	210	600	120	150

Nawabli
Principal
Sevadal Mahila Mahavidyalaya
Umrer Road, Nagpur.

[Handwritten signatures and initials]

M. Sc. CHEMISTRY Semester III

Course Category	Code	Theory / Practical	Teaching scheme (Hours / Week)				Examination Scheme					
			Theory	Practical	Total	Credits	Duration in hrs.	Max. Marks		Total Marks	Minimum Passing Marks	
								SEE	CIE		Theory	Practical
DSC	MCH3T08	Paper 8: Spectroscopy-I	4	-	4	4	3	80	20	100	40	-
DSC	MCH3T09	Paper 9: Advanced Organic Chemistry-I	4	-	4	4	3	80	20	100	40	-
DSC	MCH3T10	Paper 10: Advanced Inorganic Chemistry	4	-	4	4	3	80	20	100	40	-
DSE	MCH3T11	Paper 11: Elective (Choose any one) (a) Inorganic Chemistry Special I (b) Organic Chemistry Special I (c) Physical Chemistry Special I (d) Analytical Chemistry Special I (e) Equivalent MOOC course	4	-	4	4	3	80	20	100	40	-
DSE	MCH3P06	Practical 6: Based on Elective subject	-	4	4	2	3-8	50	50	100	-	50
RP	MCH3P07	Research Project (RP)	-	8	8	4	3-8	50	50	100	-	50
		TOTAL	16	12	28	22	-	420	180	600	160	100

Nawab
Principal
Sevadal Mahila Mahavidyalaya
Umrer Road, Nagpur.

Handwritten signatures and initials:
 - A large signature on the left.
 - Initials "ofh" in the middle.
 - A signature in the center.
 - A signature on the right.
 - A signature at the bottom center.

M. Sc. CHEMISTRY Semester IV

Course Category	Code	Theory / Practical	Teaching scheme (Hours / Week)				Examination Scheme					
			Theory	Practical	Total	Credits	Duration in hrs.	Max. Marks		Total Marks	Minimum Passing Marks	
								SEE	CIE		Theory	Practical
DSC	MCH 4T12	Paper 12: Spectroscopy-II	4	-	4	4	3	80	20	100	40	-
DSC	MCH 4T13	Paper 13: Advanced Organic Chemistry-II	4	-	4	4	3	80	20	100	40	-
DSC	MCH 4T14	Paper 14: Advanced Physical Chemistry	4	-	4	4	3	80	20	100	40	-
DSE	MCH 4T15	Paper 15: Elective (Choose any one) (a) Inorganic Chemistry Special II (b) Organic Chemistry Special II (c) Physical Chemistry Special II (d) Analytical Chemistry Special II (e) Equivalent MOOC course	4	-	4	4	3	80	20	100	40	-
RP	MCH 4P08	Research Project (RP)	-	12	12	6		100	100	200	-	100
		TOTAL	16	12	28	22	-	420	180	600	160	100

Nandk

Principal
Sevadal Mahila Mahavidyalaya
Umner Road, Nagpur.

[Handwritten signatures and initials]

Scheme of Teaching and Examination for M. Sc. (Microbiology)

As per NEP 2020 Structure and Credit Distribution of PG Degree Program
for Two Year Choice Based Credit System (Semester Pattern)

Effective from 2023-2024

Semester I

S N	Course Category	Name of Course	Course Code	Teaching Scheme (hrs.)			Total (Hrs)	Total Credit	Examination Scheme						
				(Th)	TU	P			Theory			Practical			
									Exam Hrs.	SEE	CIE	Min.	SEE	CIE	Min.
1	DSC	Microbial Metabolism	MMI1T01	4	-	-	4	4	3	80	20	40	-	-	-
2	DSC	Enzymology and Techniques	MMI1T02	4	-	-	4	4	3	80	20	40	-	-	-
3	DSE	Elective I (Choose any One) 1. Advance Techniques in Microbiology 2. Membrane Structure and Signal Transduction	MMI1T03	4	-	-	4	4	3	80	20	40	-	-	-
4	RM	Research Methodology	MMI1T04	4	-	-	4	4	2	80	20	40	-	-	-
5	LAB 1	Practical I	MMI1P01	-	-	6	6	3	2-6*				50	50	50
6	LAB 2	Practical II (Including Research Methodology)	MMI1P02	-	-	6	6	3	2-6*				50	50	50
Total				16	-	12	28	22	-	320	80	160	100	100	100

Marks of Theory Component= 400 Marks of Practical Component= 200 TOTAL = 600
Min. Passing: 160+100= 260

Nawab's
Principal
Sevada Mahila Mahavidyalaya
Umrer Road, Nagpur.

Semester II

S N	Course Category	Name of Course	Course Code	Teaching Scheme (hrs.)			Total (Hrs)	Total Credit	Examination Scheme						
				(Th)	TU	P			Theory			Practical			
									Exam Hrs.	SEE	CIE	Min.	SEE	CIE	Min.
1	DSC	Environmental Microbial Technology	MMI2T05	4	-	-	4	4	3	80	20	40	-	-	
2	DSC	Immunology and Immunodiagnostics	MMI2T06	4	-	-	4	4	3	80	20	40	-	-	
3	DSE	Elective 2 (Choose any one) 1. Microbial Metabolites 2. Pharmaceutical Microbiology	MMI2T07	4	-	-	4	4	3	80	20	40	-	-	
4	OJT	On Job Training / Field Project	MOJ2P01	-	-	8	8	4	3-8*	-	-	-	50	50	50
5	LAB 3	Practical III	MMI2P03	-	-	6	6	3	2-6*	-	-	-	50	50	50
6	LAB 4	Practical IV	MMI2P04	-	-	6	6	3	2-6*	-	-	-	50	50	50
Total				12	-	20	32	22		240	60	120	150	150	150

Marks of Theory Component = 300 Marks of Practical Component = 300 TOTAL = 600
Min. Passing: 120+150= 270

Nawabk
Principal
 Sevadal Mahila Mahavidyalaya
 Umrer Road, Nagpur

Semester III

S N	Course Category	Name of Course	Course Code	Teaching Scheme (hrs.)			Total (Hrs)	Total Credit	Examination Scheme						
				(Th)	TU	P			Theory			Practical			
									Exam Hrs.	SEE	CIE	Min.	SEE	CIE	Min.
1	DSC	Microbial Diversity, Evolution and Ecology	MMI3T08	4	-	-	4	4	3	80	20	40	-	-	-
2	DSC	Molecular Biology and Genetics	MMI3T09	4	-	-	4	4	3	80	20	40	-	-	-
3	DSC	Recombinant DNA Technology and Nanobiotechnology	MMI3T10	4	-	-	4	4	3	80	20	40	-	-	-
4	DSE	Elective 3 (Choose any one) 1. Drug and Disease Management 2. Bioinformatics	MMI3T11	4	-	-	4	4	3	80	20	40	-	-	-
5	LAB 5	Practical V	MMI3P05	-	-	4	4	2	-	-	-	-	50	50	50
6	RP	Research Project/ Dissertation (Core)	MRP3P01	-	-	8	8	4	-	-	-	-	50	50	50
Total				16	-	12	28	22		320	80	160	100	100	100

Marks of Theory Component= 400 Marks of Practical Component= 200 TOTAL = 600
 Min. Passing: 160+100=260

Neeraj

Principal
 Sevadal Mahila Mahavidyalaya
 Umrer Road, Nagpur.

M. Sc. ZOOLOGY Semester II												
Course Category	Code	Theory / Practical	Teaching scheme (Hours Week)				Examination Scheme					
			Theory	Practical	Total	Credits	Duration in hrs.	Max. Marks		Total Marks	Minimum Passing Marks	
								SEE	CIE		Theory	Practical
DSC	MZO2T05	Paper 5: Biology of Chordata	4	-	4	4	3	80	20	100	40	-
DSC	MZO2T06	Paper 6: Advanced Developmental Biology	4	-	4	4	3	80	20	100	40	-
DSE	MZO2T07	Paper 7: Electives (Choose any one) a) Mammalian Reproductive Endocrinology b) Brain and Muscle Physiology c) Economic Aquaculture d) Insect Morphology and Physiology	4	-	4	4	3	80	20	100	40	-
OJT	MZO2P03	Practical 3: On Job Training/ Field Project	-	8	8	4	3-8*	50	50	100	-	50
DSC	MZO2P04	Practical 4: Biology of Chordata	-	6	6	3	3-8*	50	50	100	-	50
DSC	MZO2P05	Practical 5: Advanced Developmental Biology	-	6	6	3	3-8*	50	50	100	-	50
TOTAL			12	20	32	22	-	390	210	600	120	150

CIE = Continuous Internal Evaluation and SEE = Semester End Examination

K. Karan
02/08/2023

Neelika
Principal
Sevadal Mahila Mahavidyalaya
Umrer Road, Nagpur.

M. Sc. ZOOLOGY Semester III

Course Category	Code	Theory / Practical	Teaching scheme (Hours / Week)				Examination Scheme					
			Theory	Practical	Total	Credits	Duration in hrs.	Max. Marks		Total Marks	Minimum Passing Marks	
								SEE	CIE		Theory	Practical
DSC	MZO3T08	Paper 9: Parasitology and Immunology	4	-	4	4	3	80	20	100	40	-
DSC	MZO3T09	Paper 10: Wild Life and Avian Biology	4	-	4	4	3	80	20	100	40	-
DSC	MZO3T10	Paper 11: Comparative Endocrinology	4	-	4	4	3	80	20	100	40	-
DSE	MZO3T11	Paper 12: Elective (Choose any one) a) Mammalian Reproductive Physiology in Female b) Blood and Cardiac Physiology c) Fish Physiology d) Insect Pest Management	4	-	4	4	3	80	20	100	40	-
DSE	MZO3P06	Practical 6: Based on Elective subject	-	4	4	2	3-8*	50	50	100	-	50
RP	MZO3P07	Research Project (RP)	-	8	8	4	3-8*	50	50	100	-	50
TOTAL			16	12	28	22	-	420	180	600	160	100

CIE = Continuous Internal Evaluation and SEE = Semester End Examination

[Signature]
02/08/2023

Nawbir
Principal
Sevada Mahila Mahavidyalaya
Umner Road, Nagpur.

M. Sc. ZOOLOGY Semester IV												
Course Category	Code	Theory / Practical	Teaching scheme (Hours / Week)				Examination Scheme					
			Theory	Practical	Total	Credits	Duration in hrs.	Max. Marks		Total Marks	Minimum Passing Marks	
								SEE	CIE		Theory	Practical
DSC	MZO 4T12	Paper 13: Biotechnique, Biostatistics, Toxicology and Bioinformatics	4	-	4	4	3	80	20	100	40	-
DSC	MZO 4T13	Paper 14: Radiation and Chronobiology	4	-	4	4	3	80	20	100	40	-
DSC	MZO4T14	Paper 15: Molecular Biology and Biotechnology	4	-	4	4	3	80	20	100	40	-
DSE	MZO 4T15	Paper 16: Elective (Choose any one) a) Mammalian Reproductive Toxicology b) Respiratory and Reproductive Physiology c) Fishery Technology and Fish Pathology d) Medical, Veterinary and Industrial Entomology	4	-	4	4	3	80	20	100	40	-
RP	MZO 4P08	Research Project (RP)	-	12	12	6	3-8*	100	100	200	-	100
		TOTAL	16	12	28	22	-	420	180	600	160	100

CIE = Continuous Internal Evaluation and SEE = Semester End Examination

Handwritten signature:
25/08/2023

Handwritten signature: Nawabk

Principal
Sevadal Mahila Mahavidyalaya
Umner Road, Nagpur,

Detail Syllabus For
Bachelor of Vocation
(B.Voc.) *Industrial Waste Treatment Technology*
Skill Development Component

NSUBK

Principal
Sevadal Mahila Mahavidyalaya
Umrer Road, Nagpur.

APPENDIX 'A'

**Teaching & Examination Scheme
DIPLOMA (ONE YEAR), ADVANCE DIPLOMA (TWO YEARS), BACHLOR OF VOCATION
(B. Voc)
(THREE YEARS DEGREE COURSE – SEMESTER PATTERN)
B. Voc. (Semester I)**

A] General Education Component Credits: 12

Sr. No.	Subject	Teaching Scheme Hrs / Week					Examination scheme							
		Credits	Theory Period	Pr-Period	Total Periods	Duration Hrs	Theory				Practical			
Max Th.	Max IA						Total	Min Pass	Du Hrs	Max Mar Pr.	Min Pass Mar.	Total Marks Th.Pr. IA		
1.	English and Communicative English –I	4	4	-	4	3	70	30	100	40	-	-	-	100
2.	Soft Skill Development –I	4	4	-	4	3	70	30	100	40	-	-	-	100
3.	Aptitude development –I	4	4	-	4	3	70	30	100	40	-	-	-	100
Total		12	12	-	12	-	210	90	300	120	-	-	-	300

B] Skill Development Component Credits: 18

Sr. No.	Theory Paper/ Practical	Subjects	Teaching Scheme(Hrs/Week)			Credits	Examination Scheme					
			Th	Pr.	Total		Duration (Hrs)	Max. Marks		Total Marks	Min. Passing Marks	
								External Marks (Th)	Internal Marks (IA)		Th.	Pr.
1	I	Paper – I	4	-	4	4	3	70	30	100	40	-
2	II	Paper – II	4	-	4	4	3	70	30	100	40	-
3	Practical-I /Workshops –I /Labs-I / Internship-I	Practical based on Paper I of skill development	-	5	5	4	6	70	30	100	-	40
4	Practical-II- Workshops –II /Labs-II / Internship-II	Practical based on Paper II of skill development	-	5	5	4	6	70	30	100	-	40
5	Field Work / Industrial Visit / Production (Report writing/ Presentation)	-	-	-	-	2	-	-	50	50	-	20
Total			8	10	18	18	-	280	170	450	80	100

Note:

1. Th = Theory; Pr = Practical; WS=Workshops/ LB=labs/ PR=Production/FW=Field Work/INT=Internship IA = Internal Assessment.

2. Minimum marks for passing will be 40% of the total marks allotted to that paper / practical.

3 Credit Calculations

One credit would mean equivalent of 15 periods of 60 minutes each, for Theory & Practical's.

For internship/ Field work, the Credit Weightage for equivalent hours shall be 50% of that for lectures.

The strength of Batch of Practical /Workshop / internship / Field visit / production for Under Graduates classes shall be 16 with an additional; of 10% with the permission of Hon'ble Vice-Chancellor.

APPENDIX 'A'

Teaching & Examination Scheme
DIPLOMA (ONE YEAR), ADVANCE DIPLOMA (TWO YEARS), BACHLOR OF VOCATION (B. Voc)
(THREE YEARS DEGREE COURSE – SEMESTER PATTERN)
B. Voc. (Semester II)

A] General Education Component Credits: 12

Sr. No.	Subject	Credits	Teaching Scheme Hrs / Week			Examination scheme																
			Th	Pr	Total	Theory					Practical											
			Th	Pr	Total	Du	Hrs	Max	Th.	Max	IA	Total	Min	Pass	Du	Hrs	Max	Mar Pr.	Min	Pass	Mar.	Total Marks Th,Pr,IA
1.	English and Communicative English –II	4	4	-	4	3		70		30		100	40		-		-		-			100
2.	Soft Skill Development – II	4	4	-	4	3		70		30		100	40		-		-		-			100
3.	Aptitude development – II	4	4	-	4	3		70		30		100	40		-		-		-			100
Total		12	12	-	12	-		210		90		300	120		-		-		-			300

B] Skill Development Component Credits: 18

Sr. No.	Theory Paper/ Practical	Subjects	Teaching Scheme(Hrs/Week)			Credits	Examination Scheme					
			Th	Pr.	Total		Duration (Hrs)	Max. Marks		Total Marks	Min. Passing Marks	
								External Marks (Th)	Internal Marks (IA)		Th.	Pr.
1	I	Paper - I	4	-	4	4	3	70	30	100	40	-
2	II	Paper - II	4	-	4	4	3	70	30	100	40	-
3	Practical-I- Workshops –I /Labs-I / Internship-I	Practical based on Paper I of skill development	-	5	5	4	6	70	30	100	-	40
4	Practical-II- Workshops –II /Labs-II / Internship-II	Practical based on Paper II of skill development	-	5	5	4	6	70	30	100	-	40
5	Field Work / Industrial Visit / Production (Report writing/ Presentation)	-	-	-	-	2	-	-	50	50	-	20
Total			8	10	18	18	-	280	170	450	80	100

Note:

1. Th = Theory; Pr = Practical; WS=Workshops/ LB=labs/ PR=Production/FW=Field Work/INT=Internship IA = Internal Assessment.

2. Minimum marks for passing will be 40% of the total marks allotted to that paper / practical.

3 Credit Calculations

One credit would mean equivalent of 15 periods of 60 minutes each, for Theory & Practical's.

For internship/ Field work, the Credit Weightage for equivalent hours shall be 50% of that for lectures.

The strength of Batch of Practical /Workshop / internship / Field visit / production for Under Graduates classes shall be 16 with an additional; of 10% with the permission of Hon'ble Vice-Chancellor.

Nawale

Sevada Mahila Mahavidyalaya,
Umner Road, Nagpur.

APPENDIX 'A'
Teaching & Examination Scheme
DIPLOMA (ONE YEAR), ADVANCE DIPLOMA (TWO YEARS), BACHLOR OF VOCATION (B. Voc)
(THREE YEARS DEGREE COURSE – SEMESTER PATTERN)
B. Voc. (Semester III)

A] General Education Component Credits: 12

Sr. No.	Subject	Credits	Teaching Scheme Hrs / Week			Examination scheme								
			Theory Period	Pr Period	Total Periods	Theory					Practical			
						Du Hrs	Max Th.	Max IA	Total	Min Pass	Du Hrs	Max Mar Pr.	Min Pass Mar.	
1.	English and Communicative English –III	4	4	-	4	3	70	30	100	40	-	-	-	100
2.	Soft Skill Development –III	4	4	-	4	3	70	30	100	40	-	-	-	100
3.	Aptitude development –III	4	4	-	4	3	70	30	100	40	-	-	-	100
	Total	12	12	-	12	-	210	90	300	120	-	-	-	300

B] Skill Development Component Credits: 18

Sr. No.	Theory Paper/ Practical	Subjects	Teaching Scheme(Hrs/Week)			Credits	Examination Scheme					
			Th	Pr.	Total		Duration (Hrs)	Max. Marks		Total Marks	Min. Passing Marks	
								External Marks (Th)	Internal Marks (IA)		Th.	Pr.
1	I	Paper - I	4	-	4	4	3	70	30	100	40	-
2	II	Paper - II	4	-	4	4	3	70	30	100	40	-
3	Practical-I- Workshops –I /Labs-I / Internship-I	Practical based on Paper I of skill development	-	5	5	4	6	70	30	100	-	40
4	Practical-II- Workshops –II /Labs-II / Internship-II	Practical based on Paper II of skill development	-	5	5	4	6	70	30	100	-	40
5	Field Work / Industrial Visit / Production (Report writing/ Presentation)	-	-	-	-	2	-	-	50	50	-	20
		Total	8	10	18	18	-	280	170	450	80	100

Note:

1. Th = Theory; Pr = Practical; WS=Workshops/ LB=labs/ PR=Production/FW=Field Work/INT=Internship IA = Internal Assessment.

2. Minimum marks for passing will be 40% of the total marks allotted to that paper / practical.

3 Credit Calculations

One credit would mean equivalent of 15 periods of 60 minutes each, for Theory & Practical's.

For internship/ Field work, the Credit Weightage for equivalent hours shall be 50% of that for lectures.

The strength of Batch of Practical /Workshop / internship / Field visit / production for Under Graduates classes shall be 16 with an additional; of 10% with the permission of Hon'ble Vice-Chancellor.

Mouli
Principal
Sevadal Mahila Mahavidyalaya
Umrer Road, Nagpur.

APPENDIX 'A'
Teaching & Examination Scheme
DIPLOMA (ONE YEAR), ADVANCE DIPLOMA (TWO YEARS), BACHLOR OF VOCATION (B. Voc)
(THREE YEARS DEGREE COURSE – SEMESTER PATTERN)

B. Voc. (Semester IV)

A] General Education Component Credits: 12

Sr. No.	Subject	Credits	Teaching Scheme Hrs / Week			Examination scheme								
			Theory Period	Pr Period	Total Periods	Theory					Practical			
						Du Hrs	Max Th.	Max IA	Total	Min Pass	Du Hrs	Max Mar Pr.	Min Pass Mar.	
1.	English and Communicative English –IV	4	4	-	4	3	70	30	100	40	-	-	-	100
2.	Soft Skill Development –IV	4	4	-	4	3	70	30	100	40	-	-	-	100
3.	Aptitude development –IV	4	4	-	4	3	70	30	100	40	-	-	-	100
	Total	12	12	-	12	-	210	90	300	120	-	-	-	300

B] Skill Development Component Credits: 18

Sr. No.	Theory Paper/ Practical	Subjects	Teaching Scheme(Hrs/Week)			Credits	Examination Scheme					
			Th	Pr.	Total		Duration (Hrs)	Max. Marks		Total Marks	Min. Passing Marks	
								External Marks (Th)	Internal Marks (IA)		Th.	Pr.
1	I	Paper - I	4	-	4	4	3	70	30	100	40	-
2	II	Paper - II	4	-	4	4	3	70	30	100	40	-
3	Practical-I- workshops –I /Labs-I / Internship-I	Practical based on Paper I of skill development	-	5	5	4	6	70	30	100	-	40
4	Practical-II- Workshops –II /Labs-II / Internship-II	Practical based on Paper II of skill development	-	5	5	4	6	70	30	100	-	40
5	Field Work / Industrial Visit / Production (Report writing/ Presentation)	-	-	-	-	2	-	-	50	50	-	20
	Total		8	10	18	18	-	280	170	450	80	100

Note:

1. Th = Theory; Pr = Practical; WS=Workshops/ LB=labs/ PR=Production/FW=Field Work/INT=Internship IA = Internal Assessment.

2. Minimum marks for passing will be 40% of the total marks allotted to that paper / practical.

3 Credit Calculations

One credit would mean equivalent of 15 periods of 60 minutes each, for Theory & Practical's.

For internship/ Field work, the Credit Weightage for equivalent hours shall be 50% of that for lectures.

The strength of Batch of Practical /Workshop / internship / Field visit / production for Under Graduates classes shall be 16 with an additional; of 10% with the permission of Hon'ble Vice-Chancellor.

NAWBIK

Principal
Sevada Mahila Mahavidyalaya
Umrer Road, Nagpur

APPENDIX 'A'
Teaching & Examination Scheme
DIPLOMA (ONE YEAR), ADVANCE DIPLOMA (TWO YEARS), BACHLOR OF VOCATION (B. Voc)
(THREE YEARS DEGREE COURSE – SEMESTER PATTERN)
B. Voc. (Semester V)

A] General Education Component Credits: 12

Sr. No.	Subject	Credits	Teaching Scheme Hrs / Week			Examination scheme									
			Theory Period	Pr Period	Total Periods	Theory					Practical				Total Marks Th,Pr,IA
						Du Hrs	Max Th.	Max IA	Total	Min Pass	Du Hrs	Max Mar Pr.	Min Pass Mar.		
1.	English and Communicative English –V	4	4	-	4	3	70	30	100	40	-	-	-	100	
2.	Soft Skill Development –V	4	4	-	4	3	70	30	100	40	-	-	-	100	
3.	Aptitude development –V	4	4	-	4	3	70	30	100	40	-	-	-	100	
Total		12	12	-	12	-	210	90	300	120	-	-	-	300	

B] Skill Development Component Credits: 18

Sr. No.	Theory Paper/ Practical	Subjects	Teaching Scheme(Hrs/Week)			Credits	Examination Scheme					
			Th	Pr.	Total		Duration (Hrs)	Max. Marks		Total Marks	Min. Passing Marks	
								External Marks (Th)	Internal Marks (IA)		Th.	Pr.
1	I	Paper - I	4	-	4	4	3	70	30	100	40	-
2	II	Paper - II	4	-	4	4	3	70	30	100	40	-
3	Practical-I- Workshops –I /Labs-I / Internship-I	Practical based on Paper I of skill development	-	5	5	4	6	70	30	100	-	40
4	Practical-II- Workshops –II /Labs-II / Internship-II	Practical based on Paper II of skill development	-	5	5	4	6	70	30	100	-	40
5	Field Work / Industrial Visit / Production (Report writing/ Presentation)	-	-	-	-	2	-	-	50	50	-	20
Total			8	10	18	18	-	280	170	450	80	100

Note:

1. Th = Theory; Pr = Practical; WS=Workshops/ LB=labs/ PR=Production/FW=Field Work/INT=Internship IA = Internal Assessment.

2. Minimum marks for passing will be 40% of the total marks allotted to that paper / practical.

3 Credit Calculations

One credit would mean equivalent of 15 periods of 60 minutes each, for Theory & Practical's.

For internship/ Field work, the Credit Weightage for equivalent hours shall be 50% of that for lectures.

The strength of Batch of Practical /Workshop / internship / Field visit / production for Under Graduates classes shall be 16 with an additional; of 10% with the permission of Hon'ble Vice-Chancellor.

APPENDIX 'A'
Teaching & Examination Scheme
DIPLOMA (ONE YEAR), ADVANCE DIPLOMA (TWO YEARS), BACHLOR OF VOCATION (B. Voc)
(THREE YEARS DEGREE COURSE – SEMESTER PATTERN)
B. Voc. (Semester VI)

A] General Education Component Credits: 12

Sr. No.	Subject	Credits	Teaching Scheme Hrs / Week			Examination scheme								
			Theory Period	Pr Period	Total Periods	Theory				Practical				
						Du Hrs	Max Th.	Max IA	Total	Min Pass	Du Hrs	Max Mar Pr.	Min Pass Mar.	Total Marks Th,Pr,IA
1.	Applied Computer Skills- I	4	4	-	4	3	70	30	100	40	-	-	-	100
2.	Applied Computer Skills- II	4	4	-	4	3	70	30	100	40	-	-	-	100
3.	Applied Computer Skills- III	4	4	-	4	3	70	30	100	40	-	-	-	100
Total		12	12	-	12	-	210	90	300	120	-	-	-	300

B] Skill Development Component Credits: 18

*** Industry Based Project**

Sr. No.	Subjects	Examination Scheme				
		Duration (Hrs)	Max. Marks		Total Marks	Min. Passing Marks
			External Marks	Internal Marks		
1	Project Work	3	200	100	300	120
2	Project Seminar	3	100	50	150	60
Total		-	300	150	450	180

Note:

1. Th = Theory; Pr = Practical; WS=Workshops/ LB=labs/ FW=Field Work/TNT=Internship IA = Internal Assessment.
2. Minimum marks for passing will be 40% of the total marks allotted to that paper / practical.

3 Credit Calculations

One credit would mean equivalent of 15 periods of 60 minutes each, for Theory & Practical's.

For internship/ Field work, the Credit Weightage for equivalent hours shall be 50% of that for lectures.

Nawale
Principal
Sevadal Mahila Mahavidyalaya
Umrer Road, Nagpur.

**Bachelor of Vocation (B.Voc.) in “Medical
Laboratory and Molecular Diagnostic
Technology”**

**Syllabus of
Skill Development Component**

Nawale

Kamtapai
Sevada Mahila Mahavidyalaya
Umre Road, Nagpur.

APPENDIX 'A'
Teaching & Examination Scheme
DIPLOMA (ONE YEAR), ADVANCE DIPLOMA (TWO YEARS), BACHLOR OF VOCATION
(B. Voc)
(THREE YEARS DEGREE COURSE – SEMESTER PATTERN)
B. Voc. (Semester I)

A] General Education Component Credits: 12

Sr. No.	Subject	Teaching Scheme Hrs / Week					Examination scheme							
		Credits	Theory Period	Pr Period	Total Periods	Duration Hrs	Theory				Practical			
Max Th.	Max IA						Total	Min Pass	Du Hrs	Max Mar Pr.	Min Pass Mar.	Total Marks Th.Pr.IA		
1.	English and Communicative English –I	4	4	-	4	3	70	30	100	40	-	-	-	100
2.	Soft Skill Development –I	4	4	-	4	3	70	30	100	40	-	-	-	100
3.	Aptitude development –I	4	4	-	4	3	70	30	100	40	-	-	-	100
	Total	12	12	-	12	-	210	90	300	120	-	-	-	300

B] Skill Development Component Credits: 18

Sr. No.	Theory Paper/ Practical	Subjects	Teaching Scheme(Hrs/Week)			Credits	Examination Scheme					
			Th	Pr.	Total		Duration (Hrs)	Max. Marks		Total Marks	Min. Passing Marks	
								External Marks (Th)	Internal Marks (IA)		Th.	Pr.
1	I	Paper – I	4	-	4	4	3	70	30	100	40	-
2	II	Paper – II	4	-	4	4	3	70	30	100	40	-
3	Practical-I /Workshops –I /Labs-I / Internship-I	Practical based on Paper I of skill development	-	5	5	4	6	70	30	100	-	40
4	Practical-II- Workshops –II /Labs-II / Internship-II	Practical based on Paper II of skill development	-	5	5	4	6	70	30	100	-	40
5	Field Work / Industrial Visit / Production (Report writing/ Presentation)	-	-	-	-	2	-	-	50	50	-	20
	Total		8	10	18	18	-	280	170	450	80	100

Note:

1. Th = Theory; Pr = Practical; WS=Workshops/ LB=labs/ PR=Production/FW=Field Work/INT=Internship IA = Internal Assessment.

2. Minimum marks for passing will be 40% of the total marks allotted to that paper / practical.

3 Credit Calculations

One credit would mean equivalent of 15 periods of 60 minutes each, for Theory & Practical's.

For internship/ Field work, the Credit Weightage for equivalent hours shall be 50% of that for lectures.

The strength of Batch of Practical /Workshop / internship / Field visit / production for Under Graduates classes shall be 16 with an additional; of 10% with the permission of Hon'ble Vice-Chancellor.

APPENDIX 'A'
Teaching & Examination Scheme
DIPLOMA (ONE YEAR), ADVANCE DIPLOMA (TWO YEARS), BACHLOR OF VOCATION (B. Voc)
(THREE YEARS DEGREE COURSE – SEMESTER PATTERN)
B. Voc. (Semester II)

A] General Education Component Credits: 12

Sr. No.	Subject	Teaching Scheme Hrs / Week				Examination scheme										
							Theory					Practical				
		Credits	Theory Period	Pr Period	Total Periods	Du Hrs	Max Th.	Max IA	Total	Min Pass	Du Hrs	Max Mar Pr.	Min Pass Mar.	Total Marks Th,Pr,IA		
1.	English and Communicative English –II	4	4	-	4	3	70	30	100	40	-	-	-	100		
2.	Soft Skill Development – II	4	4	-	4	3	70	30	100	40	-	-	-	100		
3.	Aptitude development – II	4	4	-	4	3	70	30	100	40	-	-	-	100		
Total		12	12	-	12	-	210	90	300	120	-	-	-	300		

B] Skill Development Component Credits: 18

Sr. No.	Theory Paper/ Practical	Subjects	Teaching Scheme(Hrs/Week)			Credits	Examination Scheme					
			Th	Pr.	Total		Duration (Hrs)	Max. Marks		Total Marks	Min. Passing Marks	
								External Marks (Th)	Internal Marks (IA)		Th.	Pr.
1	I	Paper - I	4	-	4	4	3	70	30	100	40	-
2	II	Paper - II	4	-	4	4	3	70	30	100	40	-
3	Practical-I- Workshops –I /labs-I / Internship-I	Practical based on Paper I of skill development	-	5	5	4	6	70	30	100	-	40
4	Practical-II- Workshops –II /Labs-II / Internship-II	Practical based on Paper II of skill development	-	5	5	4	6	70	30	100	-	40
5	Field Work / Industrial Visit / Production (Report writing/ Presentation)	-	-	-	-	2	-	-	50	50	-	20
		Total	8	10	18	18	-	280	170	450	80	100

Note:

1. Th = Theory; Pr = Practical; WS=Workshops/ LB=labs/ PR=Production/FW=Field Work/INT=Internship IA = Internal Assessment.

2. Minimum marks for passing will be 40% of the total marks allotted to that paper / practical.

3 Credit Calculations

One credit would mean equivalent of 15 periods of 60 minutes each, for Theory & Practical's.

For internship/ Field work, the Credit Weightage for equivalent hours shall be 50% of that for lectures.

The strength of Batch of Practical /Workshop / internship / Field visit / production for Under Graduates classes shall be 16 with an additional; of 10% with the permission of Hon'ble Vice-Chancellor.

APPENDIX 'A'
Teaching & Examination Scheme
DIPLOMA (ONE YEAR), ADVANCE DIPLOMA (TWO YEARS), BACHLOR OF VOCATION (B. Voc)
(THREE YEARS DEGREE COURSE – SEMESTER PATTERN)

B. Voc. (Semester III)

A] General Education Component Credits: 12

Sr. No.	Subject	Teaching Scheme Hrs / Week				Examination scheme								
		Credits	Theory Period	Pr Period	Total Periods	Theory				Practical				Total Marks Th,Pr,IA
Du Hrs	Max Th.					Max IA	Total	Min Pass	Du Hrs	Max Mar Pr.	Min Pass Mar.			
1.	English and Communicative English –III	4	4	-	4	3	70	30	100	40	-	-	-	100
2.	Soft Skill Development –III	4	4	-	4	3	70	30	100	40	-	-	-	100
3.	Aptitude development –III	4	4	-	4	3	70	30	100	40	-	-	-	100
Total		12	12	-	12	-	210	90	300	120	-	-	-	300

B] Skill Development Component Credits: 18

Sr. No.	Theory Paper/ Practical	Subjects	Teaching Scheme(Hrs/Week)			Credits	Examination Scheme					
			Th	Pr.	Total		Duration (Hrs)	Max. Marks		Total Marks	Min. Passing Marks	
								External Marks (Th)	Internal Marks (IA)		Th.	Pr.
1	I	Paper - I	4	-	4	4	3	70	30	100	40	-
2	II	Paper - II	4	-	4	4	3	70	30	100	40	-
3	Practical-I- Workshops –I /Labs-I / Internship-I	Practical based on Paper I of skill development	-	5	5	4	6	70	30	100	-	40
4	Practical-II- Workshops –II /Labs-II / Internship-II	Practical based on Paper II of skill development	-	5	5	4	6	70	30	100	-	40
5	Field Work / Industrial Visit / Production (Report writing/ Presentation)	-	-	-	-	2	-	-	50	50	-	20
Total			8	10	18	18	-	280	170	450	80	100

Note:

1. Th = Theory; Pr = Practical; WS=Workshops/ LB=labs/ PR=Production/FW=Field Work/INT=Internship IA = Internal Assessment.

2. Minimum marks for passing will be 40% of the total marks allotted to that paper / practical.

3 Credit Calculations

One credit would mean equivalent of 15 periods of 60 minutes each, for Theory & Practical's.

For internship/ Field work, the Credit Weightage for equivalent hours shall be 50% of that for lectures.

The strength of Batch of Practical /Workshop / internship / Field visit / production for Under Graduates classes shall be 16 with an additional; of 10% with the permission of Hon'ble Vice-Chancellor.

APPENDIX 'A'
Teaching & Examination Scheme
DIPLOMA (ONE YEAR), ADVANCE DIPLOMA (TWO YEARS), BACHLOR OF VOCATION (B. Voc)
(THREE YEARS DEGREE COURSE – SEMESTER PATTERN)
B. Voc. (Semester IV)

A] General Education Component Credits: 12

Sr. No.	Subject	Credits	Teaching Scheme Hrs / Week			Examination scheme								
			Theory Period	Pr. Period	Total Periods	Theory				Practical				
						Du Hrs	Max Th.	Max IA	Total	Min Pass	Du Hrs	Max Mar Pr.	Min Pass Mar.	Total Marks Th.Pr.IA
1.	English and Communicative English –IV	4	4	-	4	3	70	30	100	40	-	-	-	100
2.	Soft Skill Development –IV	4	4	-	4	3	70	30	100	40	-	-	-	100
3.	Aptitude development –IV	4	4	-	4	3	70	30	100	40	-	-	-	100
Total		12	12	-	12	-	210	90	300	120	-	-	-	300

B] Skill Development Component Credits: 18

Sr. No.	Theory Paper/ Practical	Subjects	Teaching Scheme(Hrs/Week)			Credits	Examination Scheme					
			Th	Pr.	Total		Duration (Hrs)	Max. Marks		Total Marks	Min. Passing Marks	
								External Marks (Th)	Internal Marks (IA)		Th.	Pr.
1	I	Paper - I	4	-	4	4	3	70	30	100	40	-
2	II	Paper - II	4	-	4	4	3	70	30	100	40	-
3	Practical-I- workshops –I /Labs-I / Internship-I	Practical based on Paper I of skill development	-	5	5	4	6	70	30	100	-	40
4	Practical-II- Workshops –II /Labs-II / Internship-II	Practical based on Paper II of skill development	-	5	5	4	6	70	30	100	-	40
5	Field Work / Industrial Visit / Production (Report writing/ Presentation)	-	-	-	-	2	-	-	50	50	-	20
Total			8	10	18	18	-	280	170	450	80	100

Note:

1. Th = Theory; Pr = Practical; WS=Workshops/ LB=labs/ PR=Production/FW=Field Work/INT=Internship IA = Internal Assessment.

2. Minimum marks for passing will be 40% of the total marks allotted to that paper / practical.

3 Credit Calculations

One credit would mean equivalent of 15 periods of 60 minutes each, for Theory & Practical's.

For internship/ Field work, the Credit Weightage for equivalent hours shall be 50% of that for lectures.

The strength of Batch of Practical /Workshop / internship / Field visit / production for Under Graduates classes shall be 16 with an additional; of 10% with the permission of Hon'ble Vice-Chancellor.

Nandke
Principal
Sevada Mahila Mahavidyalaya
Umrer Road, Nagpur.

APPENDIX 'A'
Teaching & Examination Scheme
DIPLOMA (ONE YEAR), ADVANCE DIPLOMA (TWO YEARS), BACHLOR OF VOCATION (B. Voc)
(THREE YEARS DEGREE COURSE – SEMESTER PATTERN)
B. Voc. (Semester V)

A] General Education Component Credits: 12

Sr. No.	Subject	Credits	Teaching Scheme Hrs / Week			Examination scheme								
			Theory Period	Pr Period	Total Periods	Theory				Practical				
						Du Hrs	Max Th.	Max IA	Total	Min Pass	Du Hrs	Max Mar Pr.	Min Pass Mar.	Total Marks Th,Pr,IA
1.	English and Communicative English –V	4	4	-	4	3	70	30	100	40	-	-	-	100
2.	Soft Skill Development –V	4	4	-	4	3	70	30	100	40	-	-	-	100
3.	Aptitude development –V	4	4	-	4	3	70	30	100	40	-	-	-	100
	Total	12	12	-	12	-	210	90	300	120	-	-	-	300

B] Skill Development Component Credits: 18

Sr. No.	Theory Paper/ Practical	Subjects	Teaching Scheme(Hrs/Week)			Credits	Examination Scheme					
			Th	Pr.	Total		Duration (Hrs)	Max. Marks		Total Marks	Min. Passing Marks	
								External Marks (Th)	Internal Marks (IA)		Th.	Pr.
1	I	Paper - I	4	-	4	4	3	70	30	100	40	-
2	II	Paper - II	4	-	4	4	3	70	30	100	40	-
3	Practical-I- Workshops –I /Labs-I / Internship-I	Practical based on Paper I of skill development	-	5	5	4	6	70	30	100	-	40
4	Practical-II- Workshops –II /Labs-II / Internship-II	Practical based on Paper II of skill development	-	5	5	4	6	70	30	100	-	40
5	Field Work / Industrial Visit / Production (Report writing/ Presentation)	-	-	-	-	2	-	-	50	50	-	20
		Total	8	10	18	18	-	280	170	450	80	100

Note:

1. Th = Theory; Pr = Practical; WS=Workshops/ LB=labs/ PR=Production/FW=Field Work/INT=Internship IA = Internal Assessment.

2. Minimum marks for passing will be 40% of the total marks allotted to that paper / practical.

3 Credit Calculations

One credit would mean equivalent of 15 periods of 60 minutes each, for Theory & Practical's.

For internship/ Field work, the Credit Weightage for equivalent hours shall be 50% of that for lectures.

The strength of Batch of Practical /Workshop / internship / Field visit / production for Under Graduates classes shall be 16 with an additional; of 10% with the permission of Hon'ble Vice-Chancellor.

Naubk
Principal
 Sevadal Mahila Mahavidyalaya
 Umrer Road, Nagpur.

APPENDIX 'A'
Teaching & Examination Scheme
DIPLOMA (ONE YEAR), ADVANCE DIPLOMA (TWO YEARS), BACHLOR OF VOCATION (B. Voc)
(THREE YEARS DEGREE COURSE – SEMESTER PATTERN)
B. Voc. (Semester VI)

A] General Education Component Credits: 12

Sr. No.	Subject	Credits	Teaching Scheme Hrs / Week			Examination scheme									
			Theory Period	Pr Period	Total Periods	Theory					Practical				
						Du Hrs	Max Th.	Max IA	Total	Min Pass	Du Hrs	Max Mar Pr.	Min Pass Mar.		
1.	Applied Computer Skills- I	4	4	-	4	3	70	30	100	40	-	-	-	100	
2.	Applied Computer Skills- II	4	4	-	4	3	70	30	100	40	-	-	-	100	
3.	Applied Computer Skills- III	4	4	-	4	3	70	30	100	40	-	-	-	100	
Total		12	12	-	12	-	210	90	300	120	-	-	-	300	

B] Skill Development Component Credits: 18

*** Industry Based Project**

Sr. No.	Subjects	Examination Scheme				
		Duration (Hrs)	Max. Marks		Total Marks	Min. Passing Marks
			External Marks	Internal Marks		
1	Project Work	3	200	100	300	120
2	Project Seminar	3	100	50	150	60
Total		-	300	150	450	180

Note:
1. Th = Theory; Pr = Practical; WS=Workshops/ LB=labs/ FW=Field Work/INT=Internship IA = Internal Assessment.
2. Minimum marks for passing will be 40% of the total marks allotted to that paper / practical.
3 Credit Calculations
One credit would mean equivalent of 15 periods of 60 minutes each, for Theory & Practical's.
For internship/ Field work, the Credit Weightage for equivalent hours shall be 50% of that for lectures.

Aswale
Principal
Sevadal Mahila Mahavidyalaya
Umrer Road, Nagpur.

1.3.2 Number of courses that include experiential learning through project work/field work/internship during the year

Program name	Program code	Name of the Course that include experiential learning through project work/field work/internship	Course code	Year of offering	Name of the student studied course on experiential learning through project work/field work/internship	Link to the relevant document		
M.Sc. SEM.III (Environment Science)	Evs. Sc.	On Job Training	MES3P07	2023-24	Ms. Nikita V. Talwekar			
					Ms. Pooja R. Game			
					Ms. Pragati R. Nakade			
					Ms. Pranjali S. Kadam			
					Ms. Sakshi R. Korde			
M.Sc. IV (Environment Science)	Evs. Sc.	Dissertation	MES3P08	2023-24	Ms. Aishwarya K. Nandurkar			
					Ms. Dhnyal Bhoge			
					Ms. Himanshi S. Bhadang			
					Ms. Janhavi Paraskar			
					Ms. Nisha K. Ninawe			
					Ms. Pranita W. Samarth			
					Ms. Priya P. Gaikwad			
					Ms. Rutika C. Gorle			
					Ms. Sakshi S. Aundhekar			
					Ms. Shivani D. Dhote			
					Ms. Shivani K. Titarmare			
					Ms. Shubhangi R. Katre			
					Ms. Soumya V. Navghare			
					Ms. Srushti M. Rode			
					Ms. Swati R. Kaware			
M.Sc. SEM. IV (Botony)	Bot.	Botany	MRP4P02	2023-24	Ms. Ashwini R. Uike			
					Ms. Prachi Raut			
					Ms. Shubhangi U. Lanjewar			
					Ms. Samiksha U. Gawande			
					Ms. Shruti N. Rajgire			
		Ms. Nashrah A. Sheikh						
		On The Job Training		MOJ2P01			Ms. Nikita D. Banait	
							Vaishnavi Gawali	
							Nikita Wankhede	
							Vedika Bhojar	
Pooja Zade								
M.Sc. SEM. IV (Chemistry)	Che.	Chemestry	MCH4P08	2023-24	Ms. Ashwini D. Nidhan			
					Ms. Adiba Khanam			
					Ms. Ankita Mandade			
					Ms. Ashanka S. Nakade			
					Ms. Avantika V. Bokde			
					Ms. Dipali A. Umre			
					Ms. Harsha S. Kapse			
					Ms. Harshada S. Satpute			
					Ms. Minal R. Bokde			
					Ms. Prachi Y. Wasnik			
					Ms. Prerana E. Mahajan			
					Ms. Sakshi S. Nakhate			
					Ms. Saniya Yameen S Tehseen			
		On The Job Training		MCH2P03			Amruta N. Bawankule	
							Gazal A. Hemne	
							Rina D. Bobade	
							Sadaf S. ASIF Ali	
							Sakshi N. Bagde	
					Shweta P. Nimje			
					Vanshika K. Pal			
					Lata Yembadwar			
					Nayana Ingle			
M.Sc. (Microbiology)	Micro.	Microbiology	MRP3P01	2023-24	Ms. Abhishree H. Deulkar			
					Ms. Anuradha N. Choudhary			
					Ms. Dipti V. Sawarkar			
					Ms. Harshada P. Mahalankar			
					Ms. Isha N. Nakshane			
					Ms. Kritika J. Gajbiye			
					Ms. Madhuri P. Deshmukh			
					Ms. Priya D. Wankhede			
					Ms. Rutuja K. Vaidya			
					Ms. Saba Afreen			
					Ms. Sakshi G. Chavan			
					Ms. Sakshi K. Meshram			
					Ms. Shreya S. Zarbade			
					Ms. Suvidha G. Hedau			
					Ms. Vaishnavi G. Mundre			

					Ms. Yogeshwari G. Dhawale
		On The Job Training	MOJ2P01		Sneha Khushal Mele
					Samiksha Sudhakar Charde
					Gayatri Natthuji Kayarkar
					Pranjali Pradep Wasnik
					Aishwarya Pillewan
					Yamini Fuke
					Rashi Kadu
					Tuba F. Sheikh
					Akanksha Meshram
					Disha Dipak Khangar
					Monika Gajbhiye
					Pranjali Hedau
					Samiksha Dange
					Shruti Vaidya
					Tanushree Mahakalkar
					Shalini Pandey
M.Sc. SEM. IV (Zoology)	Zoo.	Zoology	MZO4P08	2023-24	Ms. Anjali D. Katare
					Ms. Ashwina B. Chafle
					Ms. Bhawana S. Date
					Ms. Dipti P. Itankar
					Ms. Neha I. Bante
					Ms. Nidhi P. Rahate
					Ms. Pooja N. Vaidya
					Ms. Poonam D. Umathe
					Ms. Prachi S. Talmale
					Ms. Revati P. Agre
					Ms. Saumya P. Misari
					Ms. Savita V. Raut
					Ms. Shital S. Meshram
					Ms. Shiwani G. Kamdi
					Ms. Shiwani Y. Sathawane
					Ms. Shraddha S. Date
					Ms. Shrutika S. Shende
					Ms. Sidra Fatema Saleem Khan
					Ms. Sonal S. Meshram
					Ms. Sonali R. Gaikwad
					Ms. Twinkl S. Meshram
Zoology	Zoo.	On the Job Training	MZO2P03		Anushri Dayaram Jambhule
					Jayshree Ghanshyam Bisen
					Kanchan Manohar Meshram
					Kaveri Prabhu Vaidya
					Mrunmai Ravindra Burale
					Mubashshira Khanam Mohammd Zahid
					Naziya Parveen Abdul Razzaque
					Ramsha Zarrin Moh. Zahid
					Shital Mahadeo Madankar
B.Voc. Industrial Waste Treatment Technology	IWTT	Internship		2023-24	Ms. Prachi R. Boldhane
					Ms. Kashish M. Jawalkar
					Ms. Dipika K. Nimje
					Ms. Pratiksha M. kale
					Ms. Farhin Anjum Aslam mahajan
					Shantanu H. Gharpure
					Dilesh D. Dahikar
					Ms. Anisha I. Meshram
					Devanand D. Pongarwar
B.Voc. Medical Laboratory and Molecular Diagnostic Technology	MLMDT	Internship		2023-24	Ms. Achal B. Urkude
					Ms. Achal R. Mohod
					Ms. Adiba Gausiya Mohammed Firoz
					Ms. Aditi S. jari
					Ms. Akefa Hoomera Sheikh Mohammad
					Ms. Anamika Sorte
					Ms. Anshika S. Thakare
					Ms. Arpita B. Dhande
					Ms. Bhagyashri S. Bhoyar
					Ms. Damini D. Thote
					Ms. Dolly K. Lekurwade
					Ms. Fauziya A. Sheikh
					Ms. Gaurangi R. Shendre
					Ms. Kalyani M. Pohankar
					Ms. Karishma Bawane
					Ms. Khushali P. Padole
					Ms. Khushbu V. Patil
					Ms. Madiha A. Ahmed
					Ms. Mahin naz A. Quazi

					Ms. Md. Mustafa Raza	
					Ms. Megha G. Bhiwankar	
					Ms. Nandini S. Gawande	
					Ms. Neha S. Hiwarkar	
					Ms. Nikita N. Kodmalwar	
					Ms. Prajakta D. Mahalle	
					Ms. Reena R. Tale	
					Ms. Sayhali S. Kamble	
					Ms. Seema G. Bhoyar	
					Ms. Shahana Sheikh	
					Ms. Shakina Ansari	
					Ms. Sneha D. Bhusari	
					Ms. Swejal C. Harde	
					Ms. Teharin I. Khan	
					Ms. Ujwala R. Hatwar	
					Ms. Vaishnavi R. Vaidya	
					Ms. Vaishnavi N. Pingle	
					Ms. Vaishnavi S. Bhambore	
					Shubham C. Ghate	
					Rakesh L. Bhoyar	
					Ms. Ikra A. Khan	