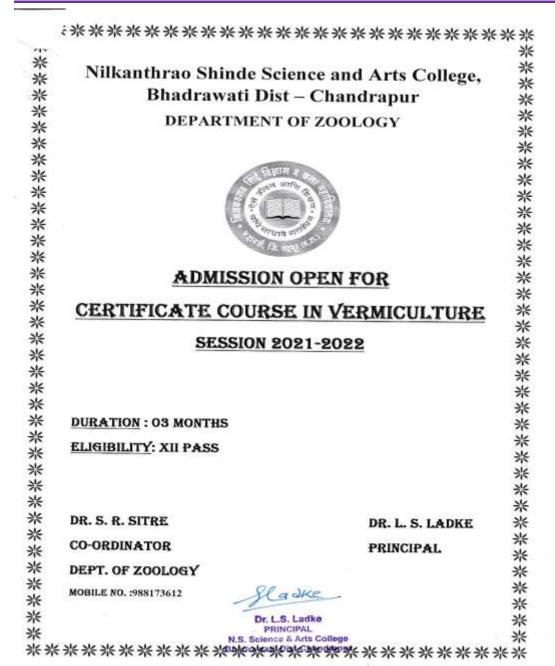
1.2.2 Number of Add on / Certificate programs offered during the session 2021-2022

- 1. Certificate Course in Vermiculture
- 2. Certificate Course in Mushroom Culture

1. <u>Certificate Course in Vermiculture</u> Broucher of Certificate Course in Vermiculture



CERTIFICATE COURSE IN VERMICULTURE

Academic Session: 2021-22

NOTICE

The Department of Zoology is going to start the 3 months certificate course in vermiculture for UG students of Department of Zoology and Microbiology, consisting of 100 Marks. The classes of this course will be held after regular teaching periods are over and will start from the month of August /Sept. 2021.

Certificates will be given to all the successful students after passing the theory examination based on Course content provided in the course period.

So interested students can join the course by contacting Department of Zoology of the college between 9 to 4.00 P.M. on all working days.

Date: 1/8/2021

Dr.Shashikant Sitre Co-ordinator

DR SHASHKART SITRE
Addistant Professor
Department of Zoology,
N. S. Science & Arts College
Shedravioti Dist - Chandrapur

Dr. L.S. Ladke

CERTIFICATE COURSE IN VERMICULTURE

Academic Session: 2021-22

Time Table

Sr.No.	Day	Time
1.	Monday	2.20 - 3.20 P.M.
2.	Tuesday	-
3.	Wednesday	2.20 - 3.20 P.M.
4.	Thursday	
5.	Friday	3.00 - 4.00 P.M.
6.	Saturday	

Date: 17-8-2021

DR.SHASHIKANT R.SITRE

Co-ordinator

Certificate Course in Vermiculture

OR PHASIMKANT SITEL

And their Probases Probables & Androgy, 11 Schence & A to College Blooms at Dist Chandrage

Dr. L.S. Ladke

2. <u>Syllabus of Certificate Course in</u> Vermiculture

NILKANTHRAO SHINDE SCIENCE AND ARTS COLLEGE, BHADRAWATI

DIST. CHANDRAPUR - 442902

CERTIFICATE COURSE IN VERMICULTURE

SYLLABUS

The Syllabus of this Certificate Course is based on theory and Practical Periods. The Written examination based on this course will consist of theory paper of 100 marks.

Unit - I

- Vermiculture and Vermicomposting
- Earthworm Species for Vermicompost Production
- · Identification of Earthworms
- Worm related Opportunities for Farmers- Potential Income Diversification- Sale of Vermicompost, Sale of Worms.

Unit-II

- Essential Things for Vermicompost Production
- Common Bedding Materials
- Common Worm Feed Stocks
- Moisture and Aeration in Vermicompost Production
- Vermicompost Pit Construction

Unit - III

- Other Important Parameters for Vermicompost Production and Vermiculture- PH, Salt Content, Urine Content.
- Methods of Harvesting Worms Manual methods, Self Harvesting Methods
- The Value of Vermicompost –Ability to stimulate plant growth, Level of Beneficial Microorganisms, Level of Plant available nutrients, Ability to repel pests.

Unit - IV

- Calculating Rates of Reproduction
- Pests and Diseases of worms Moles, Birds, Centipedes, Ants, Mites, Protein Poisoning of worms

Dr. L.S. Ladke PRINCIPAL N.S. Science & Arts College Bhadrawati, Dist-Chandrapur

- Vermicompost Systems- Windrows, Top Feed Windrows, Beds or Bins, Flow Through Reactors.
- · Vermicomposting and Water Quality Issues
- Climate Change Factors
- Nutrient Profile of Vermicompost.

Reference Books/ Manual:

Manual on Farm Vermicomposting and Vermiculture - Glenn Munroe, Organic Agriculture Centre of Canada.

Myers, Ruth (1969). The ABC's of Earthworm Business, Shields Publications, Winsconsin, USA, 64 pp.

Date: |5/6/202|

Dr. Shashikant R. Sitre
DR. SHASHIKANT SITRE

DR. SHASHIKANT SITRE
Assistant Professor
Department of Zoology,
N. S. Science & Arts College
Bhadrawart Dist: Chandrapur

Dr. L.S. Ladke

PRINCIPAL

Certificate Course in Vermiculture 2021 - 2022

Received certificates - of Vermiculture Certificat.

- 1) Neha Balwart Prasad 2) Ritesh Tiwari
- 3 mayur vishal Gaurkar
- @ Harsherd shyamkunder Aster?
- Skynyl synil Putrange (Tushar Sanoj Tlakur

1 Hased Bhaurao Wankar

- (8) Shrutika Sainath Kumare Sumare.
- Pratiksha Sudhakar Chamatkar Ps chamatkaz
- (10) Komal Sudhakar Bodhe K.S. Bille
- (1) Nikita Prabhakar Kamatkar Ramatkar
- (2) Priti Sunil Thawari P.S. Thawari

PRINCIPAL N.S. Science & Arts College Bhadrawati, Dist-Chandrapur Dr. Shashikant Sitre

Certificate Coure in Vermiculture

Dr. L.S. Ladke PRINCIPAL

CERTIFICATE COURSE IN VERMICULTURE

Academic Session: 2021-22

Marksheet

Sr.No.	Name of Student	Marks Obtained out of 100 (Theory)
1.	Haseel B. Wankar	86
2.	Tushar S.Thakur	92
3.	Mayur V.Gaurkar	88
4.	Harshad S.Askar	90
5.	Kunal S.Patrange	92
6.	Ritesh K.Tiwari	94
7.	Neha B.Prasad	94
8.	Shrutika S.Kumare	86
9.	Pratiksha S.Chamatkar	88
10.	Komal S.Bodhe	82
11.	Nkita P.Kamatkar	84
12.	Priti S.Thawari	90

Date: 15-3-2022

DR.SHASHIKANT R.SITRE

Co-ordinator

Certificate Course in Vermiculture
DR SHASHIRAMI STIKE
Assistant Professor
Department of Zoology,
6: 3. Science & Arts College
Dhagrawant Dist. Changrapur

Dr. L.S. Ladke

CERTIFICATE COURSE IN VERMICULTURE

Academic Session: 2021-22

Question Paper

Time: 3 Hours)

(Max.Marks: 100

	Note:	 All questions are compulsory. 	
		All questions carry equal marks.	
		Draw well labelled diagrams wherever necessary.	
	7		
Q.1.	Write an Essa	y on Earthworm species used in Vermiculture.	10
Q.2	Elaborate on	the common bedding materials used for vermiculture.	10
Q.3	Elaborate on	Common Worm Feeds stocks	10
Q.4	Discuss about	important parameters for Vermiculture	10
Q.5	Elaborate on	Pests and Diseases of Compost Worms	10
Q.6	Write a note of	on Static Pile Windrows	10
Q.7.	Write an acco	unt on Beds or Bins used in vermiculture	10
Q.8	Write a note of	on Flow through Reactors	10
Q.9.	Elaborate on S	Self Harvesting Method of Vermicomposting	10
2.10	Write an accor	unt on Value of Vermicompost	10

Dr. L.S. Ladke PRINCIPAL

N.S. Science & Arts College Bhadrawati, Dist-Chandrapur 12/3/2022

OR. SHASHMANT SITEL

Designation of visases

Occasioned of Zeology.

N.S. Science & Arts College

Bhadrawan Dist. Chandragur

CERTIFICATE COURSE IN VERMICULTURE

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12.	Priti S.Thawari	90

Date: 15-3-2022

DR.SHASHIKANT R.SITRE

Co-ordinator

Certificate Course in Vermiculture
DR SHASHRAMI STIRE
Assistant Professor
Department of Zoology,
m. a. Science & Arte College
Uhadrawati Dist. Chengrapur

Dr. L.S. Ladke PRINCIPAL N.S. Science & Arts College

Bhadrawati, Dist-Chandrapur

CERTIFICATE COURSE IN VERMICULTURE

Academic Session: 2021-22

Question Paper

Time: 3 Hours)

(Max.Marks: 100

	Note: 1. All questions are compulsory. 2. All questions carry equal marks. 3. Draw well labelled diagrams wherever necessary.	
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Q,8	Write a note on Flow through Reactors	10
Q.9.	Elaborate on Self Harvesting Method of Vermicomposting	10
Q.10	Write an account on Value of Vermicompost	10

Dr. L.S. Ladke PRINCIPAL

N.S. Science & Arts College Bhadrawati, Dist-Chandrapur DR. SHASHIKANT SITRE

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December of Londogy,
N. L. Science & Arts College
Bhadiment Dist. Chengrand

Dr. L.S. Ladke

CERTIFICATE COURSE IN VERMICULTURE

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DR.SHASHIKANT R.SITRE

Co-ordinator

Certificate Course in Vermiculture

DR FHARMORAY, SITCH Since of the College

Grown of Dept. To businesses

PRINCIPAL

N.S. Science & Arts College Bhadrawati, Dist-Chandrapur

Dr. L.S. Ladke

P: - IAL N.S. Science = Arts College Chadrawall, Dist-Chandrapur

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Dr.Shashikant R.Sitre DR. SHASHWANT SITRE

Assistant Professor Department of Zoology, N. S. Science & Arts College Shadrawati Dist : Chandrapur

PRINCIPAL

N.S. Science & Arts College Bhadrawati, Dist-Chandrapur

Dr. L.S. Ladke

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Date: 1/8/2021

Dr. Shashikant Sitre Co-ordinator

OR SHASHIKAHT SITRE

Assistant Professor
Discriment of Zeology,
16 II. Science & Arts College
Speciment Dist. Chandreout

Dr. L.S. Ladke

N.S. Scienti & Arts College Bhadrawau, Dist-Chandrapur

> Dr. L.S. Ladke PRINCIPAL



Bhadrawati Shikshan Sanstha, Bhadrawati's

RAO SHINDE SCIENCE & ARTS COLLEGE

Bhadrawati, District Chandrapur - 442902

Accredited "B" grade by NAAC Bangalore (3rd Cycle) (CGPA: 2.58)

Permanently Affiliated to Gondwana University, Gadchiroli

"CERTIFICATE COURSE IN VERMICULTURE"

This is to certify that Mr./Mrs./Ku.	Kunal Sunil	Patronge
	まん(ダイナンテルに こんパンタルのエフラルル)	1

B.Sc. Sem-VI has successfully completed the "Certificate Course" in "Vermiculture"

during the Academic Session 2021-2022

> Dr. S. R. Sitre Course Co-ordinator N. S. Science & Arts College,

Bhadrawati

Head, Deptt of Zoology

N. S. Science & Arts College S. Lands

Bhadraway S. Science & Arts Colle

N. S. Science & Arts College Bhadrawati

Principal

Shadrawati Die



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"CERTIFICATE COURSE IN VERMICULTURE"

	This is to certify	that Mr./Mrs./Ku.	Harshad	Shyamsundar	Askar
--	--------------------	-------------------	---------	-------------	-------

B. Sc. Sem-VI has successfully completed the "Certificate Course" in "Vermiculture" during the Academic Session 2021 - 2022

Dr. S. R. Sitre Course Co-ordinator N. S. Science & Arts College, Bhadrawati

Head, Deptt. of Zoology

N. S. Science & Arts CollegeDr. L.S. Ladke N. S. Science & Arts College Bhadrawati N.S. Science & Arts C Bhadrawati

4

Bhadrawati Shikshan Sanstha, Bhadrawati's

HILKANTHRAO SHINDE SCIENCE & ARTS COLLEGE

Bhadrawati, District Chandrapur - 442902

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"CERTIFICATE COURSE IN VERMICULTURE"

This is to certify that Mr. Mrs. Ku. Mayur Vishal Gaurkar

has successfully completed the "Certificate Course" in "Vermiculture" B.Se Sem-VI

during the Academic Session 2021 - 2022

Dr. S. R. Sitns Course Co-ordinator N. S. Science & Arts College, Bhadrawati

Head, Deptt. of Zaclogy N. S. Science & Arts College Bhadrawati De C.S. Ladke

A WAS Science & Arts College Shadrawati



Bhadrawati Shikahan Saristha, Bhadrawati's

NILKANTHRAO SHINDE SCIENCE & ARTS COLLEGE

Bhadrawati, District Chandrapur - 442902

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"CERTIFICATE COURSE IN VERMICULTURE"

This is to certify that Mr./Mrs./Ku. Tushar Sanoj Thakur

B Sc - Sem - VT has successfully completed the "Certificate Course" in "Vermiculture"

during the Academic Session 2021-2022

> Dr. S. R. Sitre Course Co-ordinator N. S. Science & Arts College Bhadrawab

Head, Doptt. of Ze N. S. Science & Arts College Br. L.S. Ladke

(adl & S Science & Arts College Bhadrawnti PRINCIPAL



Bhadrawati Shikshan Sanstha, Bhadrawati's

nilkanthrao shindeschence & arts college

Bhadrawati, District Chandrapur - 442902

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"CERTIFICATE COURSE IN VERMICULTURE"

This is to certify that Mr./Mrs./Ku. Haseel Bhaurao Wankar

B.Sc. Sem-VI has successfully completed the "Certificate Course" in "Vermiculture"

during the Academic Session 2021-2022

Dr. S. R. Sitre Course Co-ordinator N. S. Science & Arts College Bhadrawati

Head, Deptt. of Zoology

N. S. Science & Arts College Dr. L.S. Ladke

Dr. L. S. Ladler Principal

N. S. Science & Arts College Bhadrawati

PRINCIPAL

2. Certificate Course in Mushroom Culture

Broucher of Certificate Course in Mushroom Culture Technology

Nilkanthrao Shinde Science and Arts College BhadrawatiDist – Chandrapur DEPARTMENT OF BOTANY



ADMISSION OPEN FOR

CERTIFICATE COURSE IN MUSHROOMCULTURE
SESSION 2021-22

DURATION: 03 MONTHS

ELIGIBILITY: XII PASS

DR. P. N. NASRE

CO-ORDINATOR

DEPT. OF BOTANY

MOBILE NO. :9225211274

DR. L. S. LADKE

PRINCIPAL

Dr. L.S. Ladke PRINCIPAL N.S. Science & Arts College Bhadrawati, Dist-Chandrapur

Nithanthore shinds service and Aste (0) lege : refladowate DEPARTMENT OF BOTANY BLe. Lew-I BOTANY Certificate course in Mushroom culture Technology 1) Samar N. Khade 27 Sahil V. Payghan 3> Payal B. Dhueve 4> Isha V. Bodhale 5) Sany S. Patel 6) Dolly P. Singh 7> Gudiya P. Singh 8) Pratiksha M. Awale 9) Samiksha M. Basashankar 10) Prajwal G. Pendos 11) Sæmikshá Vitthal Hage 12) Aryon Prashent chide 13) Achal Regu Kemble 4) Maithili Dewanand Pathade 157 Badal Shalik Zade 16> Pallouri Balksuchna Piduzkaz Dr. L.S. Ladke

49) Secondary succession is a pro	cess
a) fast	b) medium
c) slow	d) none of the above
50) The desert areas show success	
a) hydrarch	b) xerarch
c) both a and b	d) none of the above
51) Hydrarch succession occurs in the areas, w	here water is present in
a) scanty	b) abundance
c) medium	d) none of the above
52) The theory of continental drift was pr prominence in 1950.	roposed byand come into full
a) Wegner	b) Clement
c) Braun	d) none of the above
53) There are Botanical zones in In	
a) 8	b) 7
c) 6	d) 9
54) Western Himalaya consist of North Kashm	
Kumaoun	in, South Rasinini, a part of and
a) Punjab	b) Himachal pradesh
c) Uttarakhand	d) none of the above
55) Eastern Himalaya includes Sikkim, Upper A	
a) Ottakmund	b) Mahabaleshwar
c) Darjeeling	d) none of the above
56) zone ranges from 4000 meters u	
a) Glacier	b) Alpine
c) both a and b	d) none of the above
57) Gangetic plains covers flat land of a part of	Delhi, whole of U.P., Bihar, West Bengal and
a part of	, , , , , , , , , , , , , , , , , , ,
a) Madhya Pradesh	b) Orissa
c) Arunachal Pradesh	d) none of the above
58) The average rainfall per annum may be	
a) 100 - 600 cm	b) 100 – 500 cm
c) 100 – 700 cm	d) none of the above
 The Chandrapur district accounted for 	% of the total geographical area of the
a) 35.075%	Trans.
c) 37%	b) 36%
	d) 38%
60) The major forest type in range is a) Gadchiroli	
c) Nagpur	b) Chandrapur
c) Nagpur	d) Wardha
	00 - 1K5

Dr. L.S. Ladke PRINCIPAL N.B. Seience & Arts College Bhadrawaw, Dist-Charidrapur

11) The third organic consesses a	25/200
11) The third organic component of contains again, or the	the soil
4) Sail.	the soil which considers, prevails compound ex.
<) Higgs	b) Land
12)	d) Morore
a) Atta	b colories imide the ballow stems of Cocropia trees.
4) both a and b	b) Autec
LIN	d) Note of the above
give off a sweet scent at right.	of flowers are generally pale or white its color and
a) Butarflies	A 2 IN HOLDE IN CORD AND
c) Birds	h) Moth
14)	d) inmen
individuals that is beneficial to belie a) Competition	nd as as interaction "between two species or
c) both a and is	b) Maturities
15)	d) none of the shore
into nitrogrames compounds for the g	(i) none of the above (ii) by fixing atmospheric nigrogen and converting provide and development
s) Risimbium	prowit and development.
e) Cocci	b) Bacilles
16)	d) None of the above
Annual Property Supportunity Supportunity	se renelional, ecological. Units which business a
r) bietic compounds	b) abintic components
	Worter poollystem.
c) both a and b	h) Ocean
18) Lake, poed, well etc. are	4) None of the above
4) Lotic Boosestam	consystems
e) Longic suggregates	b) Marine ecosystem
19)	
a) Terrestrial exceptions	stan segmented spenysteres.
C) Cirban economic	N) Actuation and
20) The transfer of freed	d) song of the shows
repeated states of esting and her	the in plants disough a souther of course
repeated stages of eating and being come s) Food web	is known in the
c) insthe a seed in	ti) Food Chain
20	d) tone of the above
produces and the achievers structure	d) none of the above he relationship between rembers of primary These bases are represented by manufacts of
a) Pyramid of energy	representation by manybers of
6) Permusid of some	b) Pyrumid of biomuse
22) In terrestrial accounts	E) Bone of the shore
period of one year in the quantity of	energy trapped by every since
base of received to highest service out	d) more of the above energy trapped by green place on area over a trians; of different tropics level and therefore
a) carrow	and the state of t
c) both n and b	to limes
5555355555	d) notes of the above
	A THE REGIST

23) Nitrogen Some a major parta o	if
n) 29 %	b) 79%
0.99%	d) 09%
24)	
biological characteristics of our a) pollution	
4) both a med b	9) Pollutiest
961	d) some of the above
a) Omne	georous pollutant,
s) He	b) Nitragm Oxide
260	d) Eltylmo
a) Urine	non-degradable pollution
c) faccal matter	b) Sewage
27) Olhond market	
27) Obopul gus tragedy occurred in) at 1984	Decarber
c) 1986	by 2565
	d) 1987
28) In Bhopal gas tragody	
	is an extremely poiscessus gas was
 Sofium isocyanides 	Di Batania and
c) Methyl isocyanides	 Potenius incepanius
29) Trucks, cars, buses, three whool stroke from the subsest	d) seep of the above
	THE STREET, STREET
n) red	MAN A
c) both a and b	to black
30) The National water correctations w a) 1972	(f) now of the above
() 1974	8) 1973
31) is defined as the sent	d) 1975
of quadrate studies a) Prospectory	d) 1975 sumber of individuals of a specim divided by member
0) Density	b) Abundance
(2) Reunkiner's (1934) gives	Change of the above
a) nee	Inquency classes.
() five	b) form
17) The least to	
by the neurch of enclosy which do	all with characteristics are
sy population	 d) some all with characteristics structure and regulation of ecology.
c) ecosystems	h) community
4) When the few occomisms are insurab-	4) none of the above
the beginning salled as	d) none of the above and is an area, the population increase is very slow in according
a) regutive	acceleration,
c) both a and b	k) positive
Gla I - stuned come in the co	d) sees of the above
5) In I — shaped curve, in the first plan mends scene time for adjustment	dere is no increase in size because is
needs some time for adjustment in the a) population	C NEW CONTRIBUTION.
c) hoth x and b	to community
A A PROPERTY OF THE PARTY OF TH	d) trong of the state of

		- 1
36) The term ecotype was proposed by	. /	1
at Turreson	b) Russkiner's	П
40 both is and b	d) note of the abovy	П
37) Mislaw and Shive Ran (2048) for	nd Lindmborgia polyantus and Lindmborgia	П
ratiosofolis to be the ecotypes of	energies.	-1
a) different	Nume	- 1
s) both a and b	4) none of the above	1
36) Ecods also celled as	w) touch of the move	-1
a) ophwrmones	1940a100000000	н
c) body a said b	p) pinnerogansi	-1
	d) none of the above to life cycle from sand to used in one session plant	١
mention in antiferror his majority account	and are typical of desorts and grandands.	- 1
s) Crystophysus		- 1
c) Theophysis	b) Flolophytes	- 1
	d) Phinocrophytes	- 1
40) IN IN RESERVICE STUDY OF IN	essent change i.e. the periodic phenomenon of	
organisms in relation to their climate.		
al Physiognomy	b) Sociability	-1
c) Phenology	(f) horse of the above	-1
41) is the capacity of normal	growth and reproduction which are important for	н
microsoftii mevivai of the species		-1
a) Hybrid viguer	to Vindey	-1
6) Vigour	4) none of the above	-
62) generally use Christen Rus	nkiner's (1934) of plant life forms.	- 1
ii) Pharmacologist	N) Ecologist	- 0
c) Algologists	d) mose of the above	- 1
43)mprosocs the degree of oso	or lation between species.	-1
6) Sociability	to Social reforms	- 11
c) Social attitude	4) none of the above	Ш
44) commonly occur in high at	Orales and believes	п
6) Phanerophytes	t) Hamisryptophytes	- 1
c) Churusphytes	4) rone of the above	-1
45) The bads are completely hidden in the a	4) more of the store	4
a) Therophytes		-1
c) Henicryptophytes	b) Phasarophysis	П
	d) Geophytes	-1
house a small of the first	is a natural process by which the same locality	н
becomes successively extended by diffs a) Clements		
c) E. P. Odam	b) II. Lucy Braun	
	d) note of the above	1
*// Like graceal and productions drange in 0	he species correposition of a given sons is called as	П
4-1-1-1		
a) conlegical succession	b) ecological graduation	
e) both a and b	d) none of the above	П
48) Primary succession is a very	process.	-1
a) slow	h) flat	П
c) medium	d) some of the above ladk	4
	Dr. f. S. Ladke	
	PEINCIPAL	
	N.S. Science & Arts Colleg	
	M.a. acienc: a Arts Colleg	E.
	Bhadrawati, Dist-Chandrap	ur
	THE STATE OF THE PARTY OF THE P	

	Proliminary I B.Sc Paper	ience & Arts College,Bhadrawa Scamination Summer 2022 . Sem – IV Botany II: russt ECOLOGY	
Tura : 8.00 sm to	8.15 am I	Dete: 00-06-0012 Max Mari	ta: 60
Notes	A		-
Selve Sti Qu	entions out of 60 ga	estices	
Channe corr	oct mover from the	gives four options	
10) has defined scology as the study if interactions of	Torre,
familiar and	factors.	The second secon	
a) Kndy		30 Misra	
c) Reiter		d) Erret Hacchel	
25	ix det	fined as the study of the relations of individual spec	of mic
lis environm			
4) Synocole		b) Population acclegy	
() Autoselo		d) Community goology	
		is which won and other fiving organisms live is	called
15	and an overland a con-	the second is not been writed a self-second second	
a) Stratnoph	TOTAL CONTRACTOR OF THE PARTY O	b) Thomosphon	
c) Harricher		d) Troposphere	
4) Mososphere		in beight above the outh surface.	
a) 90 km		50 110 km	
60 115 km		d) 120 km	
5) The	100	earth's surface is governed by the brightness of the	No.
w/L/str		1) Atmosphers	-
c) Temperat	200	d) occuping the shore	
e) initiate		stratified existent of increasis and organic materials	166
	decomposition of		in seek
a) Land	decomposition of	to Sell	
g) Both a an	ric.	d) None of the above	
		motion of soil is called as	
at Prost act		it) gincier femulation	2
		d) none of facet	
a) Padogora	NAME OF TAXABLE PARTY.	is the term used for the vertical section of matu	No. of the last
6) The	4 4 4 54		EC. 2011
	on the depth of 2 or		
n) Soil prof		1) land profile	
s) both a an		d) cone of these	224
		tetomines the measurest of water through pose sp	MORS AS
BOOWS OF			
n) Soil avail		to Soil profile	
q) both a an		d) neme of the above	
(0) Plants com	at absorb the hygre	sopia	
a) Water		N) Soil	
c) Both a m	of b	d) none of the above	

52) is an ornan	nental plants
a) Tectona	b) Gerbera
c) both a and b	d) none of the above
53) Glycine max is a	oil plants
a) Seed	b) fruit
c) both a and b	d) none of the above
54) Santalum is a	_ species.
a) vegetable	b) woody
c) both a and b	d) none of the above
55) Large glass houses and gre-	en houses are essential components of industry
a) micro-propagation	b) embryogenesis
c) organogenesis	d) none of the above
56) Allium is a	1,650,000,000,000,000
a) vegetable	b) fruit
c) seed	d) none of the above
57) Protoplast is a	cell,
a) naked	b) closed
c) both a and b	d) none of the above
58) Plant cells are	and can produce whole new plants under favorable
conditions for nutrients and	plant growth regulators.
a) rectangle	b) spherical
c) tote potent	d) none of the above
59) Plant tissue culture is carrie	ed out under defined conditions of environmental, nutritional
and system	
a) cell	b) tissue
c) organ	d) system
60) Propagation is carried out ur	nder conditions.
a) sterile	b) optimum
c) both a and b	d) none of the above

Dr. L.S. Ladke PRINCIPAL N.S. Science & Arts College Bhadrawati, Dist-Chandrapur

11) Keep the bulbs and tubes clean. Dust on tal bulbs decrease lighting level by a) 10 - 20% c) 30 - 40% 10.20 - 30% (0.40 - 50% 17) The Enviro (2) The Environ (a) 1983 (c) 1989 (3) The wildfife (a) 1970 (c) 1972 10 1971 14) The farest a) 1960 c) 1963 15) The Block a) 1999 d) 1983 86,2000 r) 2001 0 taj le listis, re 0 5) 199 c) 200 d) none of the at Kaziranga wildlife satelarry enablished arbdivision Justial on the south bank of the Br a) 1922 a) 1922 c) 1924 18) Manas wild e) Tripues c) Assum 19) Tadoba nati 5) 1923 d) 1926 in district Kar b) Manipur d) Nagalund of 116 sq.m. s) Gadchirol b) Nagpur c) Wardto 6) Choods 0 20) Indian Board of wildlife was first o a) 1949 c) 1951 21) The part of our called as d) 1952 or inhabited by the living organism is Dicopher
 Dich and b
 Dich and b b) Biosphere d) none of the abov to of the world goes to h) Luca Ghisi d) Benthura & Hooker a) Q.J.Radbeck c) Francis Ben 23) The largest and oldest bousiesi garden of India is al Marchel c) Kolunta 24) Largest Botanical Garden of the world is housed as octted at b) Cherenal d) None of the above n) Kere c) Alaska Collage d) Sydner

25) The Bomboy Natural History Society (SNHS) was established in 1883 and brade a) Nagper c) Kolbeper 36) The headquar h) Pune d) Mumbal s) Satura b) Aunogobat at Plane d) Batmgri c) Pures 27) Chipko Andolan was reb a) Sondorlat Bahaguna c) both a and b W Henry d) None of the above a) Media Pala d Girish Gundhi d) M.C. Mehra c) Gerah Gunda 29) World wide fand fi a) Bangalore c) Bropel 30) Branckal Gurden o a) Lucknow d) Hydenball b) Agra d) None of the above 4) Dehrakan 21) of understanding the different applica s) F.C.Steward b) Philip R. White d) Gules Makharje Q P. Malvesto at 15 pound pressure for 15 min b) 119 d) 121 525 to extratering 6 s) 118 c) 120 33) tion of seeds explants exa) Blass b) Surface ci) some of the abo media. ch both a soul h c) both a and b
34) Mannings and Skoog Media (MS) is
a) general media
c) both a and b d) none of the above 35) Hot air oven is used for the sterilize b) plastic warm d) none of the above ed for metained growth b) Gamasine a) forceps c) cotton 36) A balanced s) DOT d) none of the above c) PGR 37) Media prepare purchased from a) less c) both a sad b b) more d) more of the above affect plants tion but supp a) 2, 4 – D c) Nicotinic s 6) 2, 4, 5 – T d) IAA

19) The technique of plant cult outline occupies a key role in the revolution in which game modifications and biotechnology are comp yield and quality N) second d) none of the above b) Estemologis d) none of the above b) Leaviner hand d) none of the above spic beach for working and storage a mon, pill motor refrigerators, deep for c) both a and b 42) A media preparation room should have an glass, wave, culture, vessels, subiness, but autoclove and mechanical and b) homogenizer
d) nime of the above perity should be used for culture t) impretic c) both a and b 43) Olan distilled water and chars media properation

a) lewest

c) both a and b 60 highest d) seen of the above 44) pit of the culture meets is adjusted to 414.8-50 6) S.B - 6,0 068-7.0 @none of the above 45) Plant times culture is one part on a subline median.

a) invitor

c) both a sed b _ entireptic growth of any plant b) invive d) none of the above 46) Any part of the plant is called as
a) explant
c) suspension
47) Unorganized mass of ord is called as
a) calles b) cellin d) none of the above k) shoot oulture d) none of the abo e) rest culture 48) is the process by which cells and which lend to the production of a suspelar structur distant are forced to undergo charges h) Organogenesis d) zone of the show a) Embryogenesis c) both a and b 49) Orchids, room and in a) medicinal

a) medicinal

4) ornamental

50) Hibitana and Crotien are propagated by d) now of the above propagation
b) sexual reproduct
d) sexual of this who a) vegetative propagation
 c) both a and b fladke 51) Unually shoot formin e) 12 – 16 hrs. e) 12 – 20 hrs. _ hrs (1000-2000lex) b) 12 - 18 lms. Dr. L.S. Lad (i) none of the above N.S. Science & Art

Eliadrawati, Dist-C

Nilkanthrao Shinde Science & Arts College, Bhadrawati
Preliminary Examination Summer 2022
B.Sc. Som. VE Botany
Pager II: PLANT DIVERSITY AND CONSERVATION II
Tone: 8.00 am to 8.15 am Date: 04-06-2023 Max Market Salve 50 Questions out of 60 ques- Choose current acrower from the gives floor options
 In India, the first firest policy was declared in 1894 and rev b) 1963 d) 1954 40 1953 2) _____is prople. s) Sociability c) Urban forestry of the people, by the people and for the b) Social furestry d) none of the above roising of windbreaks, shelterbeks, form type of social forestry increase to wood lots, raiding must in village common lands etc.

a) Extension forestry to three forestry c) Farm threatry 4) It is the endeavor of the Govt, of India to one of country under the Screet cover. a) 31% d) none of the abo 69.32% e) 33% d) None of the above 1) World Wildlife Fund - Internation a) 1952 a) 1961 6) Control Board of wildlife was constitut a) 1952 b) 1957 d) 1963 5):1953 0.1954 d) 1955 es of World life ford - h a) Canada <) France (i) In Indian crysh h) America d) Switzerle 8) Vishou a) Ganesha 4) Durge 5) Visheo is a d) Shankar a) Crow
c) Eaget
10) India has algreed the cor d) Spamew
vention in the Trade of Endangered species (CITES) which is
filleation of _______plants and unlessin by controlling intended to reduce the utilization of trade in their products and in the pot to b) endersic d) some of the ol

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Milkanthras Shinde Science and Arts collège, Bhadranati; Dist-chandraphir. DEPARTMENT OF BOTAM.

CERTIFICATE COURSE IN MUSHROOM CULTURE DECHNOLOGY ACAdemic Session: 2021-2022

	RES	SULT SHEET	Max. Marks-1
Se. No.	None of Student	Marke obtained	Result
1.	Mr. Samar N. Khade	73	PASS
2.	Me. Sahil V. Payghan	71	PASS
3,	Mr. Payal B. Dhuve	74	PASS
4,	Mr. Isha V. Bodhale	75	PASS
5,	Mr. Sarry S. Patil	72	PASS
6.	Me. Dolly P. Singh	71	PASS
	Mr. Gudiya P. Singh	74	PASS
	Ms. Psatiksha M. Awale	73	PASS
9,	Mr. Sansikeha M. Bara- Shoukas	70	PASS
10.	Ms. Brapial G. Pendos	71	PASS
11.	Me Samikeha V. Hage	74	PASS
12.	Ms. Azya A. Chide	73	PASS
	Ms. Achael Royu Kamble	72	PASS
	Me Maithili D. Pathade	74	PASS
	Me Bodal S. Zade	72	PASS
16	Me. Pallari B. Piduekas	71 Stade	1756
17.]1	Ms. Karschau M. Upase	Or. L.S. Ladi PRINCIPAL N.S. Science & Arts Bhadrawati, Dist-Cha	rASS

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18. Nitukumasi D. yadev 71	PASS
19. M. Palleri N. Harney 75	PASS
20. Ms. Bhagyashee V. Khisale 72	PASS
21. Mr. Bodhisatva V. Darunde 70	PASS
	Male Sin
· · ·	

(Dr. P. N. Nasare)
Course-coordinator
Certy ficate course in
Mushroom Cutture Technology

Dr. L.S. Ladke
PRINCIPAL
N.S. Science & Arts College
Rhadiswati, Dist-Chandrapur

Dr. L.S. Ladke PRINCIPAL

DEPARTMENT OF BOTAM

CERTIFICATE COURSE IN MUSHROOM CULTURE DECHMONY

Academic Session-2021-2022 RESULT SHEET REPORT

SUMMARY OF THE REPORT OF CERTIFICATE COURSE IN MUSHROOM CULTURE TECHNOLOGY

In the academic year 2021-2022, Certiticate course is Muchroom culture Technology was conducted for the students of Brobant Carapp. Total 21 (Twentyone) students participated is the course. All students appeared in the exam and passed the exam. They is the exam and passed the exam. They acquired knowledge of the technique of Mushroom cultivation at laboratory level.

Place-Bhadranati Date-19/10/2022

(ARPNARIASQ)

(Dr. Braweenkiem as N. Nasvre) Course Co-ordinator Costificte Course in Mushroom Culture Technolog Seen

20/10/2-2 Dr. L.S. Ladke

PRINCIPAL N.S. Science & Arts College Bhadrawati, Dist-Chandrapur

Wilkouthosoo Shinde Science and Asts Wiggelindomas CERTIFICATE COURSE IN MUSH ROOM CULTURE TECHNOLOGY DEPARTMENT OF BOTALY Academic Session: 2021-2022 Received costs ficte 1. Me Sewas N. Khade - S.N. Khade 2. Mr. Sahil V. Payghan - S. Papghan 3. Ms. Payal B. Dhueve - Papal shume Me. I. Sha V. Bodhale - I.V. Bodhale Mr. Sanjays, Patil - G. P. Swal Me. Sanikeha M. Awale - PAwale hashanka Me. Sanikeha Bashashanlere - S. Bashashanlere Mr. Brajwal G. Pender Mr. Somiles o V. Hage Me Agy A chide 13. Me. Achdel Rogu Kanuble 14. Ne Maithili & Pathade Mr. Badal. S. Tade - B. Zagle Me. Pallays B. Prduelland - P. B. Prduebal Ms- Kenchau M. Upase - 6 M Upase Ms - Nitukiewest Dryadow Me. Pulars N. Harrey I.S. Science & Arts College nadrawati, Dist-Chippepapur Ne-Bhagyouslege V. Kleese Boothers



Bhadrawati Shikshan Sanstha, Bhadrawati

NILKANTHRAO SHINDE SCIENCE AND ARTS COLLEGE,



Bhadrawati, Dist. - Chandrapur (M. S.) 442902 UGC 2 (f) and 12 (B) status

Accredited "B+ grade (Third Cycle - 2016) with CGPA - 2.58 by NAAC Bangalore

CERTIFICATE COURSE IN MUSHROOM CULTURE TECHNOLOGY

CERTIFICATE

	This is to certify that I	Mr./Ku. Badal Shalik Zade
	Blockers T has succes	sfully completed certificate course in Mushroom Culture Technology
i	n the academic Session	
		stadke en
	Course Co-ordinator	Head, Department of Botany N.S. Science & Arts College Principal
	(Dr. P. N. Nasare)	(Dr. N. S. Wadhave) Bhadrawati, Dist-Chandrage L. S. Ladke)



Bhadrawati Shikshan Sanstha, Bhadrawati

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CERTIFICATE COURSE IN MUSHROOM CULTURE TECHNOLOGY

CERTIFICATE

This is to certify that Mr./Ku. Satoiksha Vitthal. Hage.

B.S. Serro-V has successfully completed certificate course in Mushroom Culture Technology in the academic Session 2021-2022

Course Co-ordinator (Dr. P. N. Nasare)

Head, Department of Botany (Dr. N. S. Wadhaye) Dr. Cadke



Bhadrawati Shikshan Sanstha, Bhadrawati

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CERTIFICATE COURSE IN MUSHROOM CULTURE TECHNOLOGY

CERTIFICATE

This is to certify that	Mr./Ku. Achal Raju Kemble.
has succe	ssfully completed certificate course in Mushroom Culture Technology
in the academic Session _2	02.1-2022.
	7 22
(ARPHNAL +80)	Head, Department of Botany of Stadke Principal
(Dr. P. N. Nasare)	(Dr. N. S. Wadhave) (Dr. N. S. Wadhave) (Dr. N. S. Science & Arts Codege (Dr. L. S. Ladke)
	N.S. Science & Arts Complete Stradgewatt, Dist-Chandrapur



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CERTIFICATE COURSE IN MUSHROOM CULTURE TECHNOLOGY

CERTIFICATE

This is to certify that Mr./Ku.	Aruce	Page	shant	chide	
Pleary has successfully con	npleted certif	icate cours	e in Mushr	oom Culture	Technology
in the academic Session 2021-2					

Course Co-ordinator (Dr. P. N. Nasare)

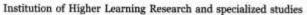
Head, Department of Botany (Dr. N. S. Wadhave)

5. Ladke Principal
RENCIPAL (Dr. L. S. Ladke)



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CERTIFICATE COURSE IN MUSHROOM CULTURE TECHNOLOGY

CERTIFICATE

This is to certify that Mr./Ku. Maithili Deward. Pathade

Blacker-V has successfully completed certificate course in Mushroom Culture Technology in the academic Session 2021-2020

Course Co-ordinator (Dr. P. N. Nasare)

Head, Department of Botany (Dr. N. S. Wadhave)

PRINCIPAL
N.S. Science & Arts College Pincipal