



Rayat Shikshan Sanstha's
D. P. Bhosale College, Koregaon

Department of Zoology

INDEX

Add on Certificate Course on Silkworm Physiology

Year 2019-20

Sr. No.	Content
1	Notice
2	Syllabus
3	Objectives and Learning Outcomes
4	Time Table
5	List of Participants
6	Attendance
7	Question Paper
8	Result
9	Report
10	Certificate



Rayat Shikshan Sanstha's

D.P. Bhosale College, Koregaon

Department of Zoology

NOTICE

2019 - 20

Date:- 25/07/2019

All the students of B. Sc. II & III are here by informed that Department has organized "**Add on Certificate Course on Silkworm Physiology**" from Thursday **1st August 2019**. All student are informed that they should remain present for course on time. It may clearly noted that fine will be collected from absent students.


Incharge


Head,

Department of Zoology

Add on Certificate Course
On
Silkworm Physiology





Rayat Shikshan Sanstha's

D.P. Bhosale College, Koregaon

Add on Certificate Course

on

Silkworm Physiology

Organized by

Department of Zoology

Course Incharge

Mr. Jawale C. B.

Course Duration: 01 Aug 2019 – 09 Sept. 2019

Rayat Shikshan Sanstha's
D.P. Bhosale College, Koregaon
Syllabus

Title – Add on Certificate Course on Silkworm Physiology

Total Hrs- 30

B. Sc. II & III (Zoology)

THEORY

Unit-1

- 1.1 Morphology and structure of silkworm egg.
- 1.2 Digestion: structure and function of digestive system.

Unit-2

- 2.1 Excretion: structure and function of excretory system
- 2.2 Nervous system and Sense organs

Unit - 3

- 3.1 Rearing house: Location, orientation, plan and utilities; model rearing house rearing house.
- 3.2 Rearing appliances-shelf and shoot rearing; requirements of rearing appliances
- 3.3 Disinfection of rearing house and rearing appliances; disinfectants formalin.

Unit-4

- 4.1 Incubation- requirement of environmental conditions, incubation devices.
Chawki rearing, Cleaning; spacing; moulting and care during moult.

Unit -5

- 5.1 Methods of bed cleaning; spacing; moulting and care during moult.
Identification of spinning larva; spinning; mounting and mounting density; types of mountages.
- 5.2 Harvesting: Time of harvesting; sorting, storage/ preservation, packaging and transport of cocoons; leaf-cocoon ratio; maintenance of rearing records.

PRACTICALS

Physiology of silkworm

1. Morphology of silkworm egg and mounting.
2. Morphology of haemocytes in silkworm.

Silkworm rearing

1. Rearing houses- model rearing house.
2. Rearing appliances.
3. Disinfection- Types of disinfectants.
4. Chawki rearing; use of paraffin paper and blue polythene sheet.
5. Bed cleaning: use of bed cleaning net.
6. Maintenance of records for silkworm rearing.



Head
Department of Zoology
D. P. Bhosale College Koregaon



Rayat Shikshan Sanstha's

D.P. Bhosale College, Koregaon

Department of Zoology

Year : 2019-20

Add on Certificate Course

on

Silkworm Physiology

Objectives

1. To understand the morphology and digestive system of silk worms.
2. To understand the excretory system, nervous system and endocrine glands of silk worms.
3. To understand the management of rearing house.
4. To understand the physiology of mulberry plant management of rearing house
5. To understand the techniques of silk worm bed cleaning, spinning harvesting

Learning Outcomes

By the completion of the course the graduate should able to –

- 1: Explain the morphology and digestive system of silk worms,
- 2: Describe the excretory system, nervous system and endocrine glands of silk worms
- 3: Describe the management of rearing house.
- 4: Explain the incubation of silk worm and rearing practices.
- 5: Describe the of silk work bed cleaning, spinning, harvesting techniques


In charge

Certificate Course


Head,

Department of Zoology



Rayat Shikshan Sanstha's

D.P. Bhosale College, Koregaon

Department of Zoology

Add on Certificate Course on Silkworm Physiology

Time Table - 2019-20

Theory & Practical

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
10.15-11.15 Theory	CBJ	NAS	SSP	SAK	TNK	CBJ
08.30-10.30 Practical	CBJ	NAS	SSP	SAK	TNK	CBJ

CBJ – Mr. C. B. Jawale

NAS – Ms. N. A. Shaikh

SSP – Ms. S.S. Pawar

SAK- Ms. S.A. Kokil

TNK- Ms. T.N. Kadam

Department of Zoology
D. P. Bhosale College Koregaon



Rayat Shikshan Sanstha's

D.P. Bhosale College, Koregaon

Department of Zoology

Add on Certificate Course on Silkworm Physiology

Time Table- 2019-20

Theory & Practical

Date	Time	Theory / Practical	Name of the teacher
01/08/2019	10.15-11.15	Theory	Ms. S.A. Kokil
02/08/2019	10.15-11.15	Theory	Ms. T.N. Kadam
03/08/2019	10-15-11.15	Theory	Mr. C. B. Jawale
05/08/2019	10.15-11.15	Theory	Mr. C. B. Jawale
06/08/2019	10.15-11.15	Theory	Ms. N. A. Shaikh
07/08/2019	08.30-10.30	Practical	Ms. S.S. Pawar
08/08/2019	10.15-11.15	Theory	Ms. S.A. Kokil
09/08/2019	10.15-11.15	Theory	Ms. T.N. Kadam
10/08/2019	08.30-10.30	Practical	Mr. C. B. Jawale
13/08/2019	10.15-11.15	Theory	Ms. N. A. Shaikh
14/08/2019	10.15-11.15	Theory	Ms. S.S. Pawar
16/08/2019	10.15-11.15	Theory	Ms. T.N. Kadam
19/08/2019	10.15-11.15	Theory	Mr. C. B. Jawale
20/08/2019	10.15-11.15	Theory	Ms. N. A. Shaikh
21/08/2019	10.15-11.15	Theory	Ms. S.S. Pawar
22/08/2019	10.15-11.15	Theory	Ms. S.A. Kokil
23/08/2019	08.30-10.30	Practical	Ms. T.N. Kadam
24/08/2019	10.15-11.15	Theory	Mr. C. B. Jawale
26/08/2019	10.15-11.15	Theory	Mr. C. B. Jawale
27/08/2019	10.15-11.15	Theory	Ms. N. A. Shaikh
28/08/2019	08.30-10.30	Practical	Ms. S.S. Pawar
29/08/2019	10.15-11.15	Theory	Ms. S.A. Kokil
30/08/2022	10.15-11.15	Theory	Ms. T.N. Kadam
31/08/2022	10.15-11.15	Theory	Mr. C. B. Jawale
03/09/2022	10.15-11.15	Theory	Ms. N. A. Shaikh

04/09/2022	08.30-10.30	Practical	Ms. S.S. Pawar
05/09/2022	08.30-10.30	Practical	Ms. S.A. Kokil
06/09/2022	08.30-10.30	Practical	Ms. T.N. Kadam
07/09/2022	08.30-10.30	Practical	Mr. C. B. Jawale
09/09/2022	08.30-10.30	Practical	Mr. C. B. Jawale


Head
Department of Zoology
D. P. Bhosale College Koregaon



Rayat Shikshan Sanstha's
D.P. Bhosale College, Koregaon
Student list 2019-20

Add on Certificate Course on Silkworm Physiology

Sr. No.	Roll No	Name of the Students
1	3371	Bandgar Tejas Vilas
2	3372	Bhoite Kunal Vitthal
3	3373	Bhosale Mahesh Ankush
4	3374	Bhosale Pooja Dattatray
5	3375	Bhosale Priya Dattatray
6	3376	Chavan Samadhan Shrikamt
7	3377	Disale Rohan Ramesh
8	3378	Ghorpade Rushikesh Shrimant
9	3379	Jadhav Ankita Bapuu.
10	3380	Jadhav Harshda Sanjay
11	3381	Jagdale Mahesh Sopan
12	3382	Kadam Manasi Sanjay
13	3383	Matkar Ashutosh Pandurang
14	3384	Matkar Dinesh Ashok
15	3385	More Dhanshri Vinod
16	3386	More Shivam Tanaji
17	3387	More Sneha Pramod

Jawale
Head

Department of Zoology
D. P. Bhosale College Koregaon

Roll No.	Name of the Student	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
3371	Bandgar T. V.	Band	Band	Band		Band	Bada	A	Band	Band	Band			Band	A		Band			Band	Band	Band	Band	Band	Band		Band	Band	Band	Band	A	Band	
3372	Bhoite K. V.	KUB	KUB	KUB		KUB	KUB	KUB	KUB	KUB	KUB			KUB	KUB		KUB			KUB	A	KUB	KUB	KUB	KUB		KUB	KUB	KUB	KUB	KUB	KUB	
3373	Bhosale M. A.	A	M	M		A	M	M	M	M	M			A	M		M			M	M	M	A	M	M		M	M	A	M	M	M	
3374	Bhosale P. D.	PD	PD	PD		PD	PD	PD	PD	PD	PD			PD	PD		PD			A	PD	PD	PD	PD	PD		PD	PD	PD	PD	PD	PD	
3375	Bhosale P. D.	PDB	A	PDB		PDB	P.D.M	PDB	PDB	PDB	A			PDB	PDB		PDB			PDB	PDB	PDB	PDB	A	PDB		PDB	PDB	A	PDB	PDB	PDB	
3376	Chavan S. S.	S.S.	A	S.S.		S.S.	S.S.	S.S.	S.S.	S.S.	A			S.S.	S.S.		S.S.			S.S.	S.S.	S.S.	S.S.	A	S.S.		S.S.	S.S.	A	S.S.	S.S.	S.S.	
3377	Disale R. R.	RR	RR	RR		RR	RR	RR	RR	RR	A			RR	A		RR			RR	RR	A	RR	RR	RR		RR	RR	RR	RR	RR	RR	
3378	Ghorpade R. S.	RS	RS	RS		RS	RS	RS	RS	RS	A			RS	RS		RS			RS	RS	RS	RS	A	A		RS	RS	RS	RS	RS	RS	
3379	Jadhav A. B.	AB	AB	AB		AB	AB	AB	AB	AB	AB			AB	AB		AB			AB	AB	AB	AB	AB	AB		AB	AB	A	AB	AB	AB	
3380	Jadhav H. S.	A	H.S.	H.S.		H.S.	H.S.	A	H.S.	H.S.	A			A	H.S.		H.S.			H.S.	H.S.	H.S.	A	H.S.	H.S.		H.S.	H.S.	H.S.	H.S.	H.S.	H.S.	
3381	Jagdale M. S.	A	M.S.	M.S.		M.S.	M.S.	A	M.S.	M.S.	M.S.			M.S.	M.S.		M.S.			M.S.	M.S.	M.S.	A	M.S.	M.S.		M.S.	A	M.S.	M.S.	M.S.	M.S.	
3382	Kadam M. S.	Kad	Kad	Kad		Kad	Kad	A	Kad	Kad	Kad			Kad	Kad		Kad			Kad	Kad	Kad	Kad	Kad	Kad		Kad	Kad	Kad	Kad	Kad	Kad	
3383	Matkar A. P.	APM	APM	APM		APM	APM	A	APM	APM	APM			A	APM		APM			APM	APM	APM	APM	APM	APM		A	APM	APM	APM	APM	APM	
3384	Matkar D. A.	ADM	ADM	ADM		ADM	ADM	ADM	ADM	ADM	ADM			ADM	ADM		ADM			ADM	ADM	ADM	ADM	ADM	ADM		ADM	ADM	ADM	ADM	ADM	ADM	
3385	More D. V.	D.more	D.more	D.more		D.more	D.more	D.more	D.more	D.more	D.more			D.more	D.more		D.more			D.more	A	D.more	D.more	D.more	D.more	D.more		D.more	D.more	D.more	D.more	D.more	D.more
3386	More S. T.	STM	STM	STM		STM	STM	STM	STM	STM	STM			STM	STM		STM			STM	STM	STM	STM	STM	STM		STM	STM	STM	STM	STM	STM	
3387	More S. P.	SMP	SMP	SMP		A	SMP	SMP	SMP	SMP	SMP			A	SMP		SMP			A	SMP	SMP	SMP	SMP	SMP	SMP		SMP	SMP	SMP	SMP	SMP	SMP

Jagdale
Head

Department of Zoology
D. P. Bhosale College Koregaon

Roll No.	Name of the Student	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
3371	Bandgar T. V.	Band	Band	Band	Band	Band	Band	A	Band	Band	Band			Band	A	Band				Band	Band	Band	Band	Band	Band	Band	Band	Band	Band	Band	Band	Band
3372	Bhoite K. V.	KUB	KUB	KUB	KUB	KUB	KUB	KUB	KUB	KUB	KUB			KUB	KUB	KUB				KUB	A	KUB	KUB	KUB	KUB	KUB	KUB	KUB	KUB	KUB	KUB	KUB
3373	Bhosale M. A.	A	M	M	A	M	M	M	M	M	M			A	M	M				M	M	M	A	M	M	M	M	M	M	M	M	M
3374	Bhosale P. D.	PP	PP	PP	PP	PP	PP	PP	PP	PP	PP			PP	PP	PP				A	PP	PP	PP	PP	PP	PP	PP	PP	PP	PP	PP	PP
3375	Bhosale P. D.	P.P.B	A	P.P.B	P.P.B	P.P.B	P.P.B	P.P.B	P.P.B	P.P.B	A			P.P.B	P.P.B	P.P.B				P.P.B	P.P.B	P.P.B	P.P.B	A	P.P.B	P.P.B	P.P.B	P.P.B	P.P.B	P.P.B	P.P.B	
3376	Chavan S. S.	S.S.	A	S.S.	S.S.	S.S.	S.S.	S.S.	S.S.	S.S.	A			S.S.	S.S.	S.S.				S.S.	S.S.	S.S.	S.S.	A	S.S.	S.S.	S.S.	A	S.S.	S.S.	S.S.	S.S.
3377	Disale R. R.	RR	RR	RR	RR	RR	RR	RR	RR	RR	A			RR	A	RR				RR	RR	A	RR	RR	RR	RR	RR	RR	RR	RR	RR	RR
3378	Ghorpade R. S.	RS	RS	RS	RS	RS	RS	RS	RS	RS	A			RS	RS	RS				RS	RS	RS	RS	A	A	RS	RS	RS	RS	RS	RS	RS
3379	Jadhav A. B.	AB	AB	AB	AB	AB	AB	AB	AB	AB	AB			AB	AB	AB				AB	AB	AB	AB	AB	AB	AB	AB	AB	AB	AB	AB	AB
3380	Jadhav H. S.	A	H.S.	A	H.S.	H.S.	A	H.S.	H.S.	A				A	H.S.	H.S.				H.S.	H.S.	H.S.	A	H.S.	H.S.	H.S.	H.S.	H.S.	H.S.	H.S.	H.S.	H.S.
3381	Jagdale M. S.	A	M.S.	M.S.	M.S.	M.S.	A	M.S.	M.S.	M.S.				M.S.	M.S.	M.S.				M.S.	M.S.	M.S.	A	M.S.	M.S.	M.S.	M.S.	M.S.	M.S.	M.S.	M.S.	M.S.
3382	Kadam M. S.	Kad	Kad	Kad	Kad	Kad	A	Kad	Kad	Kad				Kad	Kad	Kad				Kad	Kad	Kad	Kad	Kad	Kad	Kad	Kad	Kad	Kad	Kad	Kad	Kad
3383	Matkar A. P.	AP	AP	AP	AP	AP	A	AP	AP	AP				A	AP	AP				AP	AP	AP	AP	AP	AP	AP	AP	AP	AP	AP	AP	AP
3384	Matkar D. A.	AD	AD	AD	AD	AD	AD	AD	AD	AD				AD	AD	AD				AD	AD	AD	AD	AD	AD	AD	AD	AD	AD	AD	AD	AD
3385	More D. V.	more	more	more	more	more	more	more	more	more	more			more	more	more				more	A	more	more	more	more	more	more	more	more	more	more	more
3386	More S. T.	STM	STM	STM	STM	STM	STM	STM	STM	STM	STM			STM	STM	STM				STM	STM	STM	STM	STM	STM	STM	STM	STM	STM	STM	STM	STM
3387	More S. P.	SP	SP	SP	A	SP	SP	SP	SP	SP	SP			A	SP	SP				A	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP

(Signature)
Head

Department of Zoology
D. P. Bhosale College Koregaon

Rayat Shikshan Sanstha's

D. P. Bhosale College, Koregaon

Department of Zoology

Question Paper

Add on Certificate Course on Silkworm Physiology

Marks : 30

Instructions

1. All the questions are compulsory
 2. Questions to the right Indicate full Marks
 3. Draw neat and Labelled diagrams wherever necessary
-

Que. 1: Long questions (Any 2)

20

- a. With neat labelled diagram describe the life cycle of silkworm.
- b. Describe the management of silkworm rearing house.
- c. Explain the incubation of silk worm and chawki rearing practice.

Que. 2: Write short notes on following (Any 2)

10

- a. Disinfection of rearing house
- b. Structure of digestive system
- c. Molting



Rayat Shikshan Sanstha's
D.P. Bhosale College, Koregaon
Student list 2019-20

Add on Certificate Course on Silkworm Physiology

Marklist

Sr. No.	Roll No.	Name of the Students	Que. 1 20	Que. 2 10	Total 30
1	3371	Bandgar Tejas Vilas	18	07	25
2	3372	Bhoite Kunal Vitthal	19	09	28
3	3373	Bhosale Mahesh Ankush	15	07	22
4	3374	Bhosale Pooja Dattatray	17	08	25
5	3375	Bhosale Priya Dattatray	18	09	27
6	3376	Chavan Samadhan Shrikamt	17	08	25
7	3377	Disale Rohan Ramesh	18	06	24
8	3378	Ghorpade Rushikesh Shrimant	17	08	25
9	3379	Jadhav Ankita Bapuu.	12	09	21
10	3380	Jadhav Harshda Sanjay	16	09	25
11	3381	Jagdale Mahesh Sopan	18	07	25
12	3382	Kadam Manasi Sanjay	17	08	25
13	3383	Matkar Ashutosh Pandurang	16	09	25
14	3384	Matkar Dinesh Ashok	12	09	21
15	3385	More Dhanshri Vinod	18	07	25
16	3386	More Shivam Tanaji	19	09	28
17	3387	More Sneha Pramod	18	07	25

Bhosale
Head

Department of Zoology
D. P. Bhosale College Koregaon



**Rayat Shikshan Sanstha's
D. P. Bhosale College, Koregaon**

Department of Zoology

Report

Add on Certificate Course on Silkworm Physiology

As India is an agriculture-based country, there is a lot of scope in this industry. The latest advancement in technology has increased career opportunities both in private and public sectors. Sericulture provides a wide range of job prospects in academic fields, research centres, agricultural enterprises, and of course, sericulture units. The syllabus has also been framed in such a way that the basic skills of subject are taught to the students.



Fourth instar larvae of *Bombyx mori*

The main objectives of course are motivating the farmers to plant high yielding mulberry varieties to increase income and productivity. Imparting training in mulberry cultivation, silkworm rearing and silk reeling.

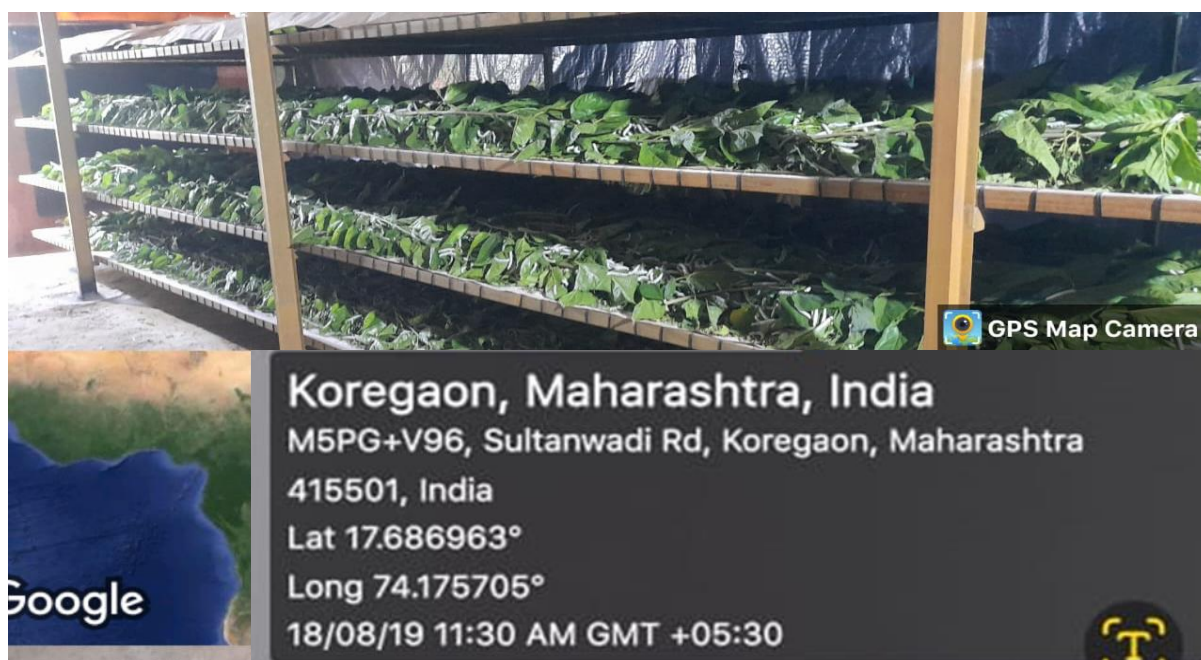
Department of Zoology has offered this course for B.Sc. II and B.Sc. III students.

This course was conducted during the 1st August 2019 to 9th September 2019.

During this period the lectures and practicals were conducted by resource faculties. In this period department has organised one short trip to Wai for practical demonstration. Mr. C.B. Jawale, Miss N.A. Shaikh, Miss S.S. Pawar, Miss S. A. Kokil and Miss T.N. Kadam conducted the practicals and theory period. During this period 17 students have been enrolled of this course.

Assist in procurement of improved rearing equipment and construction of separate rearing house. Ensure supply of disease free silkworm seeds.

After completing this course students get knowledge about the commercial production of cocoons and understand the practices of silkworm culture and its management to produce quality cocoons. Apply practical knowledge to become successful entrepreneur.



Visit to sericulture Centre



Koregaon, Maharashtra, India
M5PG+V96, Sultanwadi Rd, Koregaon, Maharashtra
415501, India
Lat 17.686963°
Long 74.175705°
18/08/19 11:44 AM GMT +05:30

Google

Mulberry Plantation for feeding to *Bombyx mori*


Head
Department of Zoology
D. P. Bhosale College Koregaon



"Education through Self-help is our Motto" - KARMAVEER
Rayat Shikshan Sanstha's

D.P. Bhosale College, Koregaon

District – Satara. (M.S.)
NAAC Reaccredited 'A' (with CGPA 3.12)



Add on Course

CERTIFICATE

This is to certify that **Mr. / Miss** -----**Class :** -----

has successfully completed "Add on Certificate Course" on -----

From ----- to ----- Organized by Department of Zoology, D. P. Bhosale College, Koregaon,
District- Satara, (M.S.).

Incharge



Head
Department of Zoology