

Shri Vithhal Rukhmini College Sawana
Pracals
Subject: Zoology

Sr. No.	Name of the Practicals	Video link
B.Sc. I (Sem I)		
1	Classification of chordata	https://www.youtube.com/watch?v=xl8xwBH15Hg
2	Study of permanent slides of Ascaris eggs	https://www.youtube.com/watch?v=uNCFWvB_Nfw
3	Anatomical study of leech: Reproductive system	https://www.youtube.com/watch?v=8fCsHbbxyro
4	Mounting of Mosquitoes	https://www.youtube.com/watch?v=RLIYuXIUS3k
B.Sc. II (Sem III)		
1	Classification phylum chordata	https://www.youtube.com/watch?v=uyBhOAY8FAE
2	Osteology: Rabbit	https://www.youtube.com/watch?v=wOakTEMqyk4
3	Study of Fossils	https://www.youtube.com/watch?v=SEDFry6DQns
4	Analogous and Homologous organs	https://www.youtube.com/watch?v=2N3OPRodRvk
5	Connecting links between two different groups	https://www.youtube.com/watch?v=LXSkblbmlZI
6	Histological slides of Amphioxus	https://www.youtube.com/watch?v=aZJC-ilKKUA
7	T. S. Of stomach of frog	https://www.youtube.com/watch?v=g3F5Cd8hH0E
B.Sc. III (Sem V)		
1	Detection blood group in human being	https://www.youtube.com/watch?v=PLhbRulwNV0
2	WBCs count in blood	https://www.youtube.com/watch?v=7g0wifwNGCQ
3	RBCs Count in blood	https://www.youtube.com/watch?v=0f9p9JX4qJk
4	Preparation of Haemin crystal	https://www.youtube.com/watch?v=mOrRJBqm744
5	Measurement of blood pressure	https://www.youtube.com/watch?v=UGOoeqSo_ws
6	Histological slides of Respiratory system	https://www.youtube.com/watch?v=N9AG8RY46Nk

Sr. No.	Name of the Practicals	Video link
B.Sc. I (Sem II)		
1	Use, care and maintenance of microscope	https://www.youtube.com/watch?v=bKdrAPGImcs
2	Gram staining of bacteria	https://www.youtube.com/watch?v=-OvDvS-Pec
3	Preparation of polytene chromosome	https://www.youtube.com/watch?v=sm3X6HThJNQ
4	Stages of mitosis in onion root tips	https://www.youtube.com/watch?v=5-ur7bWqIDQ
5	Demonstration of developing chick embryo	https://www.youtube.com/watch?v=PedajVADLGw
6	Life cycle of Mosquitoes	https://www.youtube.com/watch?v=mroLFTPhL90
7	Permanent slides of chick Embryo	https://www.youtube.com/watch?v=Vky8QN63eVE
B.Sc. II (Sem IV)		

Principal
Shri Vithhal Rukhmini
College, Sawana
Ta. Mahasaraksh Dist. Yavatmal

Shri Vitthal Rukhmini College, Sawana

Department of Botany

Projects 2020-21

1) Seed collection

Ex-situ conservation of plant genetic resource can be achieved through seed banks. The main objective behind this project to Conservation of germ plasma of local vegetables, fruits, crop, medicinal plants as well as staple food varieties available in the area and create interest and awareness among students about Ex-situ conservation of plant genetic resources. During the period of 2020-21 under this project students collected near about 50 types of seeds and preserved in botanical seed repository

Sr. No	Name of students	Collected seeds
1	Abhijit Sanjay Ranvir	<i>Senna obtusifolia</i>
2	Poonam santosh chavhan	<i>Tectona grandis</i>
3	Aarti Dipak Panse	<i>Dhatura stramonium</i>
4	Rohit Yashwantrao Deshmukh	<i>Piper longum</i>
5	Balaji ashok jadhav	<i>Abrus precatorius</i>
6	sudesh ramesh devsarkar	<i>Semicarpous anacardium</i>
7	Jay vishwambhar jadhao	<i>Abutilon indicum</i>
8	VAISHNAVI DIGAMBAR JADHAO	<i>Pisum sativum</i>
9	Punam Gajanan payaghan	<i>Cajanus cajan</i>
10	Vishal Datta Jadhav	<i>Vigna radiata</i>
11	Subodhkamble	<i>Ricinus communis</i>
12	Nikita ganesh vajirabade	<i>Terminalia chebula</i>
13	Anjali Balaji Vajirabade	<i>Terminalia bellerica</i>
14	Akash Uttam Bhise	<i>Zea mays</i>
15	Nikita Prakash Dhore	<i>Carica papaya</i>
16	Shubham Rahul Bhaware	<i>Mangifera indica</i>
17	Aditya Pundlik Wadekar	<i>Pennisetum glaucum</i>
18	Abhishek Sudhakar jadhao	<i>Anacyelus pyrethrum</i>
19	Sagar Santosh Pawar	<i>Coriandrum sativum</i>
20	Manisha bhalchandra gaykwad	<i>Acacia nilotica</i>
21	Shubhangi yashwantrao deshmkh	<i>Butea monosperma</i>
22	Prajyot naik	<i>Trigonella foenum-graecum</i>
23	Ankita Digambar Gaikwad	<i>Spinacia oleracea</i>
24	Abhinav Dattrao Narwade	<i>Momordica charantia</i>
25	Faizan Rafik Sheikh	<i>Citrus lemon</i>
26	Divya Gunaji Pate	<i>Cucumis sativus</i>
27	Shital Mangilal Rathod	<i>Acacia nilotica</i>
28	Ravikiran Sunil Hajare	<i>Cucumis sativus</i>
29	Durgesh Gangaram Rawte	<i>Brassica juncea</i>
30	Nausheen khanam shaikh Nisar	<i>Gossypium herbaceum</i>

Shri Vitthal Rukhmini College, Sawana

Department of Botany

B.Sc -III (SEM-V)

LABORATORY EXERCISE

Part 1: Plant Physiology: Major experiment

Experiment Number 1

Aim: To study the effect of temperature and organic solvent on permeability of plasma membranes.

Material required: Water baths, Thermometer, Distilled water, large beetroot, Cork borer size no. 4 or 5

Chemicals: Alcohols and methanol.

Principle: Living beetroot cells are suitable materials to demonstrate the effects of high temperature and chemicals on the permeability of cell membranes. Beetroot contains a red pigment called anthocyanin, which is located in the large central vacuoles of the beetroot cells. As long as the cells and their membranes are intact, the anthocyanin will remain inside the vacuoles. However, if the membranes are damaged, anthocyanin will leak out and produce a red colour in the water surrounding the beetroot. The intensity of red colour in the water can be used to assess the degree of damage to living membranes by different factors. High temperature and organic solvents e.g., alcohols, denature membrane proteins and increase the fluidity of membrane lipids. Organic solvents at high concentrations can also dissolve lipids. Acetone, alcohol and chloroform are organic solvents that severely destroy membranes.

Procedure: (For high temperature)

1. Use a cork borer to cut cylinders of tissue from a beetroot.
2. Cut the cylinders of beetroot into thin discs of about 3 mm thick.


Principal
Shri Vitthal Rukhmini
College, Sawana
Tq. Morvi, Dist. Yavatmal

31	Samadhan laxman jamdhade	<i>Abolmoscus esculantes</i>
32	Ashwini kondbarao ukande	<i>Capsicum annum</i>
33	Pallavi Dilip Gaulkar	<i>Allium sativum</i>
34	Aditya devidas daware	<i>Cucurbita maxima</i>
35	Tejas Ramesh Rewanwar	<i>Lycopersion lycopersicum(tomato)</i>
36	Asha chandusing jathawa	<i>Moringa oleifera</i>
37	Shivam Dnyaneshwar Gore	<i>Sesbania grandiflora</i>
38	Hazequa Firdous	<i>Hibiscus sabdarifa</i>
39	Punam Anil Devsarkar	<i>Rumex acetosa</i>
40	Mohammad Aadil	<i>Vigna sinnsis</i>
41	Aarti Dipak Panse	<i>Phaseolus vulgaris</i>
42	Pratham Digambar Deshmukh	<i>Asparagus racemosus</i>
43	Muhammad BILAL Muhammad Hanif gauri	<i>Tamarindus indica</i>
44	Ujawaldip pandit Kamble	<i>Sesamum indicum</i>
45	Vaishnavi Apparao Ade	<i>Pennisetum glaucum</i>
46	Vaishnavi kailas paikarao	<i>Canna generalis</i>
47	Viren Tryambak Chakranarayan	<i>Glycine max</i>
48	Vivek Sanjay Pande	<i>Trigonella foenum</i>



Principali
Principal
Shri Vitthal Rukhmini
College, Sawana
Tq. Mahagaon Dist. Yavatmal

Shri Vitthal Rukhmini College, Sawana

Department of Physics

Session-2020-2021

Practical You Tube Link

PHYSICS SEM-1

Sr. No.	Name of Experiment	You tube Link
1	Determination of coefficient of restitution for inelastic collision.	https://youtu.be/cgP2-dYtef0
2	Moment of inertia of fly wheel.	https://youtu.be/9agoJRCnu4w
3	Study of compound pendulum.	https://youtu.be/N7_4nX-CQgc
4	Modulus of rigidity by Torsional Pendulum.	https://youtu.be/Qq-XWf2r6-g
5	Acceleration due to gravity by Kater's pendulum.	https://youtu.be/tFPfXe2ysHE
6	Young's modulus by cantilever.	https://youtu.be/4KV08s-qd2A
7	Young's Modulus by bending of beam.	https://youtu.be/UPv09L8trz0
8	Modulus of rigidity by Maxwell's needle.	https://youtu.be/TdhpBSwA95g
9	Determination of Surface tension by Jager's method.	https://youtu.be/jIjZSAeCqHs


Principal
Shri Vitthal Rukhmini
College, Sawana
Tq. Mahagaon Dist. Yavatmal

PHYSICS SEM-II

Sr. No.	Name of Experiment	You Tube Link
1	Measurement of low resistance by potentiometer.	https://youtu.be/58Klcnx2soc
2	To determine high resistance by leakage method.	https://youtu.be/8KbPLRCPhZU
3	Verification of laws of capacitances.	https://youtu.be/0LWNWNt4hiI
4	Study of transformer	https://youtu.be/JnTV0O2D-qo
5	Verification of Kirchoff's law, using electrical network.	https://youtu.be/bWLDpsjSj0M
6	Verification of Maximum power transfer theorem.	https://youtu.be/Fb_vDMet_Y
7	Verification of Thevenin's theorem.	https://youtu.be/IBjdVAK4QxM
8	Verification of Norton's theorem.	https://youtu.be/x7QRAM5w1K8
9	Verification of Milliman's theorem.	https://youtu.be/7cJLAL6bZ9Y

PHYSICS SEM-III

Sr. No.	Name of Experiment	You tube Link
1	To determine characteristics of CE transistor	https://youtu.be/4ZlcbPcMpCA
2	To determine characteristics of FET	https://youtu.be/4xKSh4VFF-U
3	To study FET as a voltmeter	
4	To study Zener regulated power supply	https://youtu.be/Da39JHhNWqk
5	To study phase shift oscillator	https://youtu.be/E0E1OqBUu78

Principal
 Shri Vitthal Rukhmini
 College, Savasa
 To. Mahagaon De. 427002

6	To determine characteristics of p-n junction.	https://youtu.be/4wKv-DKltB8
7	Study of OP AMP as an inverting amplifier	https://youtu.be/n62S8Ft3PTg
8	Study of OP AMP as noninverting amplifier	https://youtu.be/n62S8Ft3PTg
9	Study of OP AMP as subtractor	https://youtu.be/AW4Kjp-KaLs
10.	Study of OP AMP as adder	https://youtu.be/AW4Kjp-KaLs

PHYSICS SEM-IV

Sr. No.	Name of the experiment	You tube Link
1	To determine the wavelength of monochromatic light by Newton's rings.	https://youtu.be/Zih6083n4x0
2	To determine the wavelength of monochromatic light by plane diffraction grating.	https://youtu.be/p8cyO76gxZI
3	To find the number of lines per centimeter of the given grating.	https://youtu.be/AcF7mD-MnuM
4	To determine the resolving power of plane diffraction grating.	https://youtu.be/0FxfmBLN31s
5	To determine the wavelength of laser light.	https://youtu.be/Nfr9yI4qW7c
6	Determination of refractive index of a prism by spectrometer.	https://youtu.be/JvVOaqej1II
7	To determine the resolving power of prism.	
8	Determination of solar constant	https://youtu.be/Nh2H5JOxmQ


Principal
 Shri Vitthal Rukhmani
 College, Sawana
 Tal. Mangron Dist. Jaisalmer

PHYSICS SEM-V

Sr. No.	Name of Experiment	You Tube Link
1	To study phase shift oscillator.	https://youtu.be/hmSvO5nWIMQ
2	To study Wein bridge oscillator.	https://youtu.be/nPPAisul4EE
3	To study Hartlay oscillator.	https://youtu.be/0hJ2Hpm8oj8
4	To study Colpits oscillator.	https://youtu.be/effCoGiuYT8
5	Study of monostable multivibrator.	https://youtu.be/eWMsUkLQIZc
6	Study of astable multivibrator.	https://youtu.be/imwlUwqFt4
7	To study characteristics of Zener diode.	https://youtu.be/kqUTjs598-0
8	Study of LED characteristics.	https://youtu.be/suLftpChtfc
9	Study of characteristics of Laser.	https://youtu.be/BKVMw4jpDZw

PHYSICS SEM-VI

Sr.No.	Name of Experiment	You tube Link
1	To study hysteresis losses in transformer core and plot B-H curve.	https://youtu.be/x9eoN4sIbvs
2	To study characteristics of Photo diode.	https://youtu.be/y3uFMV-B488
3	To study Zener regulated power supply	https://youtu.be/Da39JHhNWqk
4	Determination of Band gap energy of a pn junction / zener diode	https://youtu.be/7LeH6OSFTJ0
5	To study Characteristics of Photocell	https://youtu.be/6Z-oRvk8bhQ


Principal
Shri Vitthal Rukhmini
College, Sawana
 T-1, Main Road, Dist. Yavatmal