



### Rayat Shikshan Sanstha's

Annasaheb Awate Arts, Commerce & Hutatma Babu Genu Science College
Manchar, Tal. Ambegaon, Dist. Pune
(Reaccredited with 'A' Grade by NAAC)
Affiliated by Savitribai Phule Pune University, Pune

### **CRITERION II - TEACHING-LEARNING AND EVALUATION**

### **AQAR 2022-23**

### 2.3 TEACHING - LEARNING PROCESS

2.3.2 - Teachers use ICT enabled tools for effective teaching-learning process.

### **List of Documents:**

- 1. Link for E-content on college website.
- 2. ICT facilities available in college campus.
- 3. Record of ICT enabled tools used (sample).
- 4. Glimpse of ICT enabled tools used.

## Link for E-content on college website

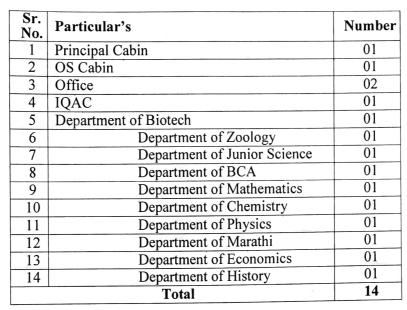
Sr. No.	Criteria	Link of College Website
1.	ICT enabled facilities	https://aacmanchar.edu.in/audio_visual_room.php
2.	Video Lectures/ Power point Presentation	https://aacmanchar.edu.in/online_education.php
3.	Knowledge Resource Center	https://aacmanchar.edu.in/library/index.php
4.	E-Learning Facility to the readers	https://aacmanchar.edu.in/library/e_learning.php
5.	E-Resources	https://aacmanchar.edu.in/library/e_resources.php

### Rayat Shikshan Santha's

### AnnasahebAwateArts, Commerce & Hutatma Babu Genu Science College, Manchar,Tal-Ambegaon,Dist-Pune

### **ICT enabled Tools**

### 1. Laptops:



### 2. LCD Projector

Sr. No.	Particular's	Number
1	Hall-Auditorium	01
2	Principal Cabin	01
3	Department- Biotech	01
- 4	Zoology	01
5	Junior Science	01
6	BCA	01
7	Mathematics	01
8	Chemistry (A010)	01
9	Physics Lab	01
10	Electronics Lab	01
11	English	01
12	Commerce	01
13	B.Voc. (Food) (Hall No. 31)	01
14	Botany	01
15	Hall No A 06	01
16	A08	01
17	A16	01
18	B01	01
19	B03	01
20	B11	01
21	B14	01
22	C03	01
23	C04 A	01
24	C04 B	01
	Total HES 44	24



## 3. Internet/Wi-fi Connections: 3 Connections with 100, 50 & 30 mbps speed respectively.

SAHES
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Sr. No.	Sr. No. Speed Vendor	
1	1 100 mbps SCC Cable Networ	
2	50 mbps Saurav Broadband	
3	30 mbps	Saurav Broadband

### 4. Computers:

Sr. No.	Particular's	Number
1	Commerce Computer Lab	16
2	English Language Lab	16
3	B.Voc. (Acc. & Tax.) Computer Lab	21
4	Physics Computer Lab	10
5	Electronics Computer Lab	06
6	BBA (CA) Computer Lab	40
7	Departmental Computers	17
8	Office	10
	Total	136

- 5. Routers: 15 Routers were installed at different zones in campus.
- 6. You tube Link: 595 Videos were uploaded at college you-tube channel with 6.64 K subscribers.
- 7. You Tube channel link:

https://www.youtube.com/channel/UCIPmGFordjTbP5mlPyG84EA/about

8. Digital LibraryLink: <a href="https://aaclibrary01.wixsite.com/mysite-aaclibrary/home">https://aaclibrary01.wixsite.com/mysite-aaclibrary/home</a>



Annasaheb Awate College, Manchar, Dist.Pune

# 2.3.2 Number of classrooms and seminar halls with ICT- enabled facilities such as smart class, LMS, etc.

Room number or Name of classrooms/Seminar Hall with LCD/wifi/LAN facilities with room numbers	Type of ICT facility
A-01 Auditorium Hall	LCD Projector, Internet Connection- LAN and wifi, Recording Facilities.
A-02 Lecture Hall	Wi-fi
A-03 Lecture Hall	Wi-fi
A-04 Lecture Hall	Wi-fi
A-05 Lecture Hall	Wi-fi
A-06 Lecture Hall	LCD Projector, Internet Connection- Wi-fi
A-07 Department of Geography	Computer, Internet Connection LAN and wifi
A-08 Lecture Hall	LCD Projector, Internet Connection- Wi-fi
A-09 M.Sc. Practical Lab	Internet Connection LAN and wifi
A-010 Physical chemistry Lab	Smart Board, LCD Projector, Internet Connection- Wi-fi, LAN
A-011 Department of Chemistry (Staff Room)	Computer, Internet Connection LAN and wifi
A-012 Organic Chemistry Lab (Sr.)	Computer, Internet Connection LAN and wifi
A-013 Inorganic Chemistry Lab/Research Lab	Computer, Internet Connection LAN and wifi
A-1.1 Department of Physics (Staff Room)	Computer, Internet Connection LAN and wifi
A- 1.2 Physics Lab (Sr.)	Internet Connection LAN and wifi
A- 1.3 Physics and Electronic Lab & Computer Lab	Computer, Internet Connection LAN and wifi
A- 2.1 Department of Botany (Staff Room)	Computer, Internet Connection LAN and wifi
A- 2.2 Botany Lab	LCD Projector, Internet Connection- Wi-fi
A- 2.3 Botany Lab (Tissue Culture)	Computer, Internet Connection LAN and wifi
A- 2.4 Department of Zoology (Staff Room)	Computer, Internet Connection LAN and wifi
A- 2.5 Zoology Lab (Sr.)	Computer, Internet Connection LAN and wifi
A-1.10 M.Sc. Botany Ph.D. Research Centre (Lab)	Internet Connection LAN and wifi
A- 19 Biology Lab	Internet Connection LAN and wifi

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A 10 x		
A- 18 Lecture Hall	Internet Connection LAN and wifi	
A- 17 Lecture Hall	Internet Connection LAN and wifi	
A- 16 Lecture Hall	LCD Projector, Internet Connection LAN and wifi	
A- 15 Lecture Hall	Internet Connection LAN and wifi	
A- 14 Lecture Hall	Internet Connection LAN and wifi	
A- 13 Lecture Hall	Internet Connection LAN and wifi	
A- 12 Lecture Hall	Internet Connection LAN and wifi	
A- 11 Department of BBA(CA) – Staff Room,	LCD Projector, Computer, Internet Connection-	
Class room, Lecture Hall	LAN and wifi	
Video Recording Studio	Video Recording, Computer, Internet Connection- LAN and wifi	
B-01 Lecture Hall	Projector, Internet Connection LAN and wifi	
B-02 Lecture Hall	Internet Connection LAN and wifi	
B-03 Lecture Hall	Projector, Internet Connection LAN and wifi	
B-04 Lecture Hall	Internet Connection LAN and wifi	
B-11 Lecture Hall	Projector, Internet Connection LAN and wifi	
B-12 Lecture Hall	Internet Connection LAN and wifi	
B-13 Lecture Hall	Internet Connection LAN and wifi	
B-14 Lecture Hall	Projector, Internet Connection LAN and wifi	
L-7 Department of Commerce-Lecture Hall, Computer lab.	Projector, Computer, Internet Connection- LAN and wifi	
L-8 Department of English- Language Lab	Projector, Computer, Internet Connection- LAN and wifi	
L-10 Department of Bio Technology and Environment Research Centre	Projector, Computer, Internet Connection- LAN and wifi	
L-11 Lecture Hall of Bio Technology	Internet Connection- LAN and wifi	
L-12 – MPSC Competitive Exam Centre- Reading Hall	Projector, Internet Connection- LAN and wifi	
L-14 Lecture Hall	Internet Connection- LAN and wifi	
C-01 Food technology Lab - Lecture Hall and	Computer, Internet Connection- LAN and wifi	
staff room.	Internet Connection- LAN and wifi	
C-02 Lecture Hall	Internet Connection- LAN and wifi	
C-03 Lecture Hall	Internet Connection- LAN and wifi	
C-04 A-Lecture Hall		
C-04 B- Lecture hall	Projector Internet Connection- LAN and wifi	
C-05 A- Lecture Hall	Internet Connection- LAN and wifi	
C-05 B- Lecture Hall	Internet Connection- LAN and wifi	



### Rayat Shikshan Sanstha's

## Annasaheb Awate Arts, Commerce and Hutatma Babu Genu Science College

### Manchar, Tal. Ambegaon, Dist. Pune CRITERION II: TEACHING-LEARNING AND EVALUATION (350)

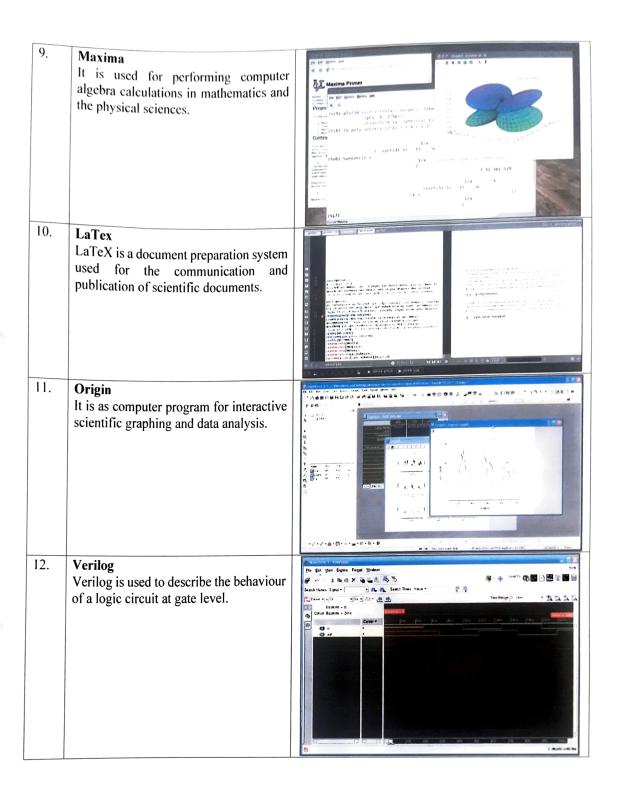
A.Y. 2022-23

	A. Y. 2022-23				
Sr. No.	Name of the ICT Tool & Use	Photograph			
1.	Google Classroom Google classrooms are used for disseminating study materials, conducting online lectures and assessments.	TYBSc Zoology MOD-30  Grant State Control of the Co			
2.	Google forms Google forms are used for assessments.	Genetics Unit Test I			
3.	Google Meet/ ZOOM Online lectures are conducted via google meet/ ZOOM platform.	Low Tryptophan  Staded at Try codons			
4.	YouTube Channel The video lectures of faculty members are uploaded on College YouTube Channel. Faculty members also use educational videos, animations published on YouTube channels.	And Makes			

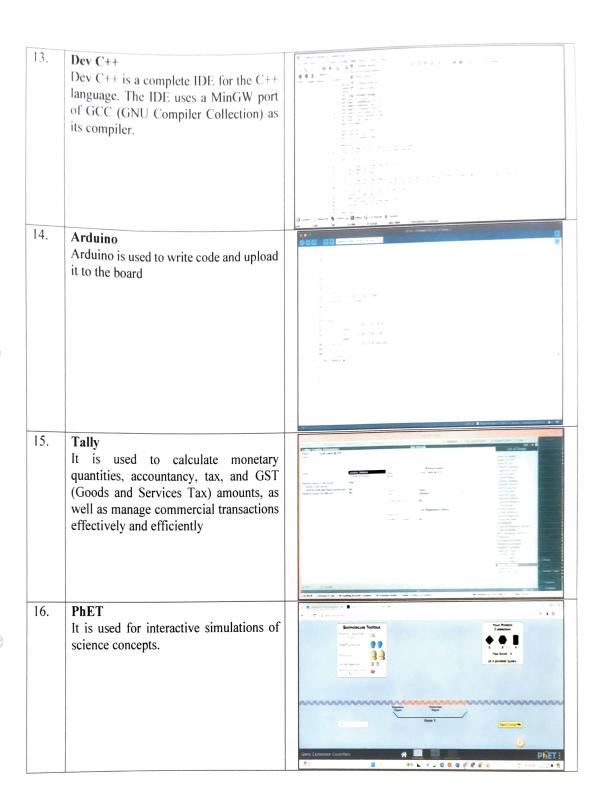


Socratives an online tool for teachers to give quizzes and on-the-fly assessments to students 6. Virtual Labs by IIT-B Virtual labs provide remote access to simulation-based Labs in various disciplines of Science and Engineering. 7. WhatsApp WhatsApp is used for disseminating study material, information related to examinations etc. 8. Smartboards Smartboards provide interactive tool for teachers and students that allows users to edit and annotate directly on the screen KETOSES with a stylus or their finger.









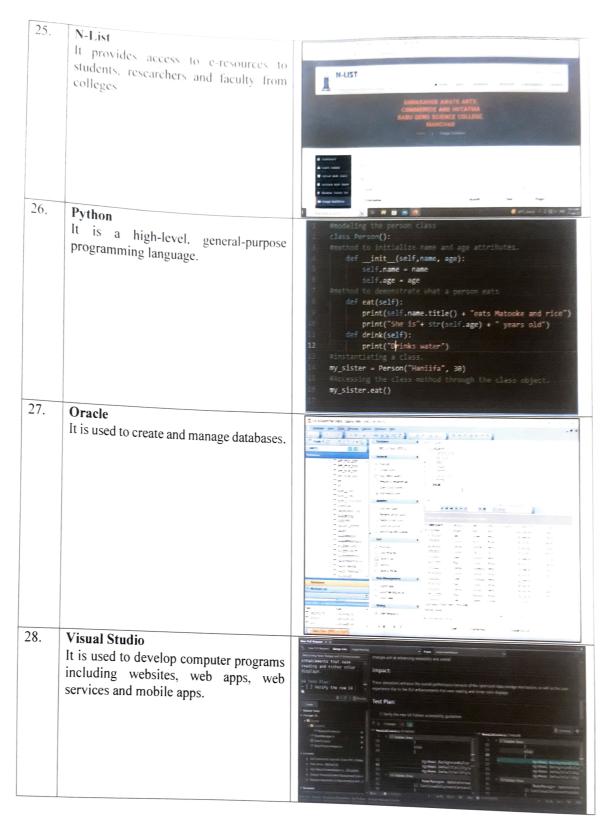


## 17. Chemdraw Chemdraw is used to draw the structure of chemical compounds. 18. **BLAST NCBI** The program compares nucleotide or protein sequences to sequence databases and calculates the statistical significance. 19. Powtoon Powtoon is used for creating animated presentations and animated explainer videos Content of the Subject Introduction **Central Dogma Applications** 20. **Powerpoint** It is used to create clean slideshow presentations and recording video lectures. Manchar, Maharashtra, India 2X72+5V9, Ambegaon, Manchar, Maharashtra 410503, India Lat 19.013045° Long 73.952571° Google 21/11/22 02:16 PM GMT +05:30

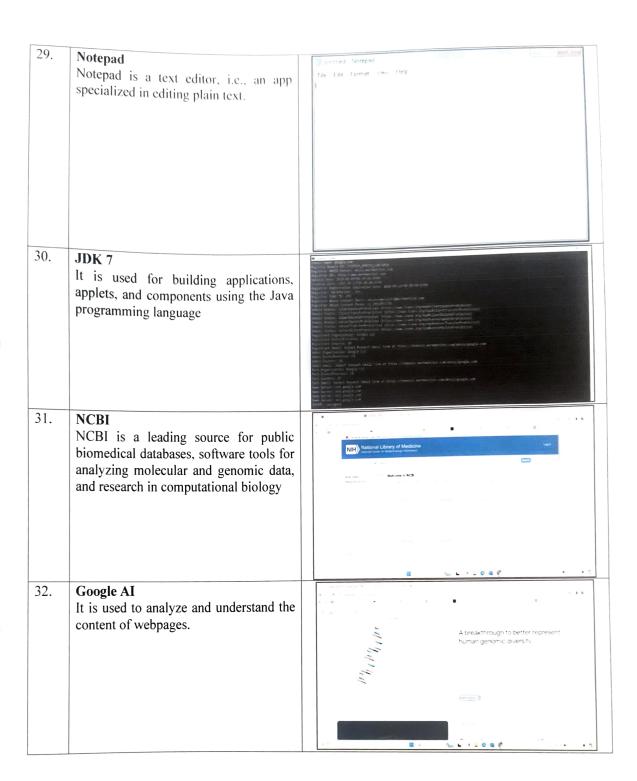


















### An initiative of Ministry of Human Resource Development under the National Mission on Education through ICT www.vlabs.iitb.ac.in



Santosh Noronha noronha@iitb.ac.in
Chemical Engineering: (22)25767238 / 25764246
Healthcare, Educational Tech: (22)25764227
Indian Institute of Technology Bombay, Powai, Mumbai, 400 076, India.

**NCID - 249** 

VL/MP4/NC249/23

14th February 2023

To,

#### **Dr Kaluram Kanade**

Annasaheb Awate Arts, Commerce and Hutatma Babu Genu Science College, Manchar Annasaheb Awate Arts, Commerce and Hutatma Babu Genu Science College, Manchar, Tak. Ambegaon, Dist. Pune

Pune - 410503, Maharashtra

Dear Sir/Madam,

With reference to your Expression of Interest for Virtual Labs Nodal Centre (VLNC), it gives me immense pleasure to designate your college as a Nodal Centre for Virtual labs. As recommended by you, following have been nominated from your college,

Nodal Coordinator: Prof Hemangi Gavit

Nodal Technical Coordinator: Prof Afroj Dange

This approval is valid up to 31st Dec 2023 and is subject to the Terms and Conditions mentioned in the EoI and any subsequent directives as issued by MoE. Kindly acknowledge receipt of this letter and acceptance of the Terms and Conditions.

We thank you again for your interest in the Virtual Labs project and appreciate your endeavour in the service of the student community. Wishing you all the best!

Sincerely,

Prof. Santosh Noronha





# Department of Chemistry T.Y.B.Sc. Chemistry

**Notice** 

Date: 01/05/2023

All students of T.Y.B.Sc. are hereby informed that your virtual lab practicals is scheduled on 08<sup>th</sup> May 2023 as per attached timetable. Attendance is mandatory to all students.

Subject	Physical	Inorganic	Organic
			,
Date	08/05/2023	08/05/2023	08/05/2023
			e e e e e e e e e e e e e e e e e e e
	11:00 am –	1:00 pm to	3:00 pm to
Time	,	e	
	12:30 pm	2:30 pm	4:30 pm
			,

Head
Department of Chemistry
A. A. College, Manchar,
Tal. Anthegaon, Dist. Pune







# Department of Chemistry T.Y.B.Sc. Chemistry Timetable

Date: 8th May 2023

Subject	Physical	Inorganic	Organic
Date	08/05/2023	08/05/2023	08/05/2023
Time	11:00 am –	1:00 pm to	3:00 pm to
	12:30 pm	2:30 pm	4:30 pm





Department of Chemistry Virtual Lab Practicals T.Y.B.Sc. Chemistry Photo-Gallery

Date: 8th May 2023









Students Performing Practical's on Amrita Vishvavidhyapith Physical Chemistry Laboratory







### Department of Chemistry Virtual Lab Practical's T.Y.B.Sc. Chemistry Attendance

Date: 8th May 2023

Roll		Physical	Inorganic	Organic
No	Student Name			
4418	Nighot Shruti Rahul	Tout !	Jan	telli
4419	Ohol Mayuri Tukaram	Mayura	Mayurat	Tayurt
4468	Pingale Adesh Babasaheb	17mg/e	Kingale	MAGGIL
4420	Pingale Durga Santosh	A note	Bingle	100 mgc
4421	Pokharkar Kajal Rajendra	Charkar	Donar ton	Thankan
4422	Pokharkar Omkar Kaluram	ankan	Qualax	Oman
4423	Pokharkar Priyanka Rajendra	N-ye	en	anity.
4424	Pokharkar Sakshi Shankar	Salette	Salet	sall
4425	Pokharkar Samruddhi Subhash	Sourt	Says	Sara
4426	Rokade Diksha Sanjay	Trobes	Droked	Doopeds
4427	Shinde Akshay Ganesh	Made	Mad	at and
4428	Somvanshi Shruti Sanjay	Shules	Shull	Shule
4429	Supe Dipali Soma	Supi	Sup	Surp
4431	Teke Sakshi Sandip	· Jewers	Schola	Penall
4474	Thorat Chetan Ankush	thutu!	elut	durth
4432	Vidhate Yogesh Dasharath	yogular	yozus	Yigish
4433	Wable Rani Kailas	WROW	way	w Ravi
4434	Wayal Neeta Pravin	resta	Seito	Musto
4435	Wayal Nikita Dattatray	Milata	Nerto	Milesto







### Department of Chemistry Virtual Lab Practical's T.Y.B.Sc. Chemistry Attendance

Date: 8<sup>th</sup> May 2023

Roll		Physical	Inorganic	Organic
No	Student Name	,	g	
	Momin Minaz Mohammad	Mon	allows	all mans
4475	Ishaque		0000	CCCOCC.
4406	Ansari Fija Latif	A	A	H
4407	Badhekar Siddhesh Balasaheb	Sadlo AB	fiddiss	freducts
4469	Bhagwat Dnyanesh Vitthal	Durgund	Dugans	Drayer
4471	Chavan Anil Sanjay	Aud	Land	June
4408	Davane Omkar Subhhash	andle	onker	anks
4409	Gawade Payal Kaluram	pun	Rugh	rayo
4476	Gawari Aishwarya Dnyaneshwar	Anwari	Jawari	Hawari
4410	Hinge Priyanka Eknath	Mge.	Ange_	Hinge
4411	Hinge Shubham Ramdas	Shubhans	Alumber	Shubham
4412	Jadhav Minal Sahebrao	Tadhar -	Jadhav -	Tadhau
4413	Kale Priyanka Rajendra	Kale	Rale	Rale
4414	Karale Sarthak Ramesh	Sorthack	Serthak	- Sarthat
4473	Khebade Pratik Santosh	Khehade	Phebade	Thebade
4472	Kurkute Vinay Bharat	Kurkute	Hurkute	Kurkule
4477	Kurkute Vinay Bharat	Minkete	Makade	Wirkute
4478	Lohakare Shivani Ramchandra	Lohakre	Johanna	tohakre
4470	Lokhande Jay Pandharinath	tokande	Jokanole	Tokando
4415	Marade Dipali Nivrutti	Diputi	Directi	Directi
4416	Nighot Divya Sudhir	Wighote		Wighete
4417	Nighot Sayali Arun	- cupit	cinali	Seyeat



### Rayat Shikshan Sanstha's

# Annasaheb Awate Arts, Commerce & Hutatma Babu Genu Science College, Manchar, Pune Department of Electronic Science

ICT Enabled Tools 2022-23

### ICT-enabled tools for effective teaching and learning process

The Institute follows ICT enabled teaching in addition to the traditional classroom education. Subsequent efforts are taken by the institute to provide e-learning atmosphere in the classroom. College uses Information and Communication Technology (ICT) in education to support, enhance, and optimize the delivery of education.

#### **ICT Tools:**

- 1. Projectors- 1 projectors are available in lab.
- 2. Desktop and Laptops-There are 6 Computer in the lab.
- 3. Printers- They are installed at Labs.
- 4. Seminar Rooms- 1 seminar halls are equipped with all digital facilities.
- 5. Auditorium- It is digitally equipped with mike, projector, cameras and computer system
- 6. Online Classes through Zoom, Google Meet, Google Classroom)

### **Use of ICT By Faculty**

- **A. PowerPoint presentations** Faculties are encouraged to use power-point presentations in their teaching by using LCD's and projectors. They are also equipped by digital library, online search engines and websites to prepare effective presentations.
- **B. Industry Connect** Seminar and Conference room are digitally equipped where guest lectures, expert talks and various competitions are regularly organized for students.
- **C. Online quiz** Faculties prepare online quiz for students after the completion of each unit with the help of GOOGLE FORMS.
- **D. Video Conferencing** Students are counseled with the help of Zoom / Google meet applications.
- **E. Video lecture** Recording of video lectures is made available to students for long term learning and future referencing.
- **F. Online competitions** Various technical events such as Poster making, Project presentations, paper presentations etc. are being organized with the help of various Information Communication Tools.
- **G. Workshops-** Teachers use various ICT tools for conducting workshops on latest methods such as Orcad, Proteus, Programming languages, simulations etc.

Dept. of Electronice Science
A. A. College, Manchar

### Rayat Shikshan Sanstha's

## Annasaheb Awate Arts, Commerce & Hutatma Babu Genu Science College, Manchar, Pune Academic year 2022-23

## List of PowerPoint Presentations Department: Electronic Science

Sr. No	Name of the Teacher	Number of PPTs Available		
	PPTs			
1	Ms. A M Dange	33		
2	Ms. J B Khilari	17		
3	Video Recording	11		
4	4 Animation PPT 13			
5	Software	11		
6	Virtual Lab	02		
7	E-Content	152		

Head

Dept. of Electronice Science

A. A. College, Manchar

Sr. No.	Use of ICT for effective teaching, Learning & Evaluation
1	Use of LCD in Classroom
2	Use of smart boards in Classroom
3	Internet connectivity in Classroom
4	Use of Online Lectures / Video Lectures
5	Providing E-Contents / E-Recourses
6	Use of Online Tests / Online Quiz, etc.

Head

Department of Chemistry
A A College, Manchar

"al. Ambegaon Dist Pune."

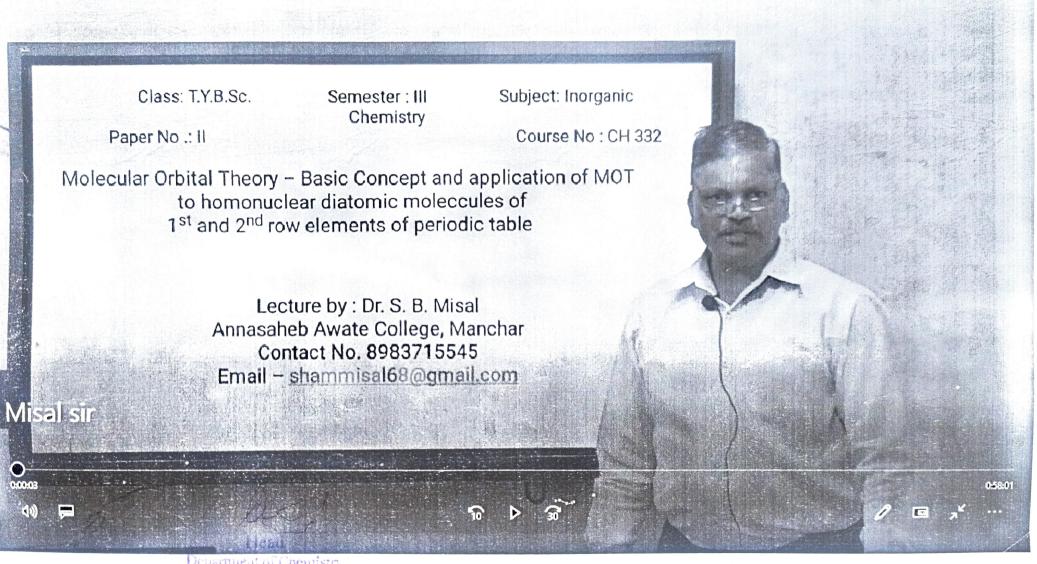
Principal
Annavaheb Aware College,
Manchar, Dist. Pune

Sr. No.	Use of ICT for effective teaching, Learning & Evaluation
1	Use of LCD in Classroom
2	Use of smart boards in Classroom
3	Internet connectivity in Classroom
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5	Providing E-Contents / E-Recourses
6	Use of Online Tests / Online Quiz, etc.

Head

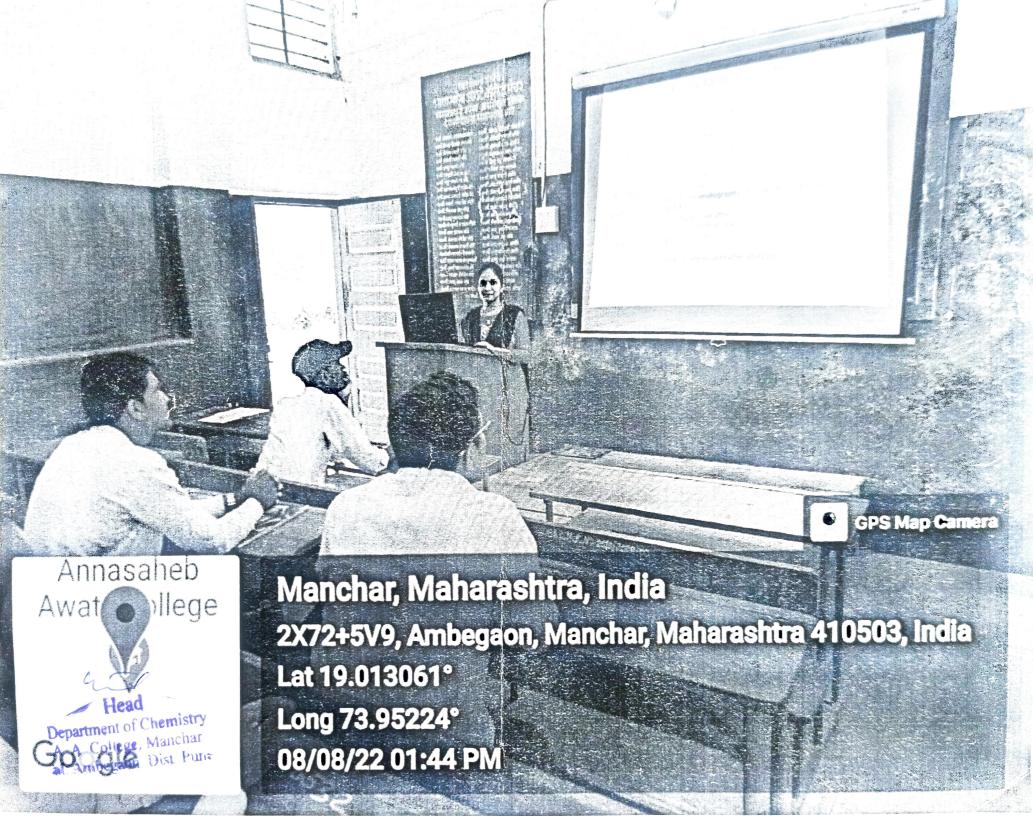
Department of Chemistry
A A College, Manchar
al. Ambegaon Dist Pune.

Principal
Annasaheb Lavate College,
Manchar, Dist. Pune



Department of Chemistry A. A. College, Manchar, lal, Ambegaon, Dist. Pune

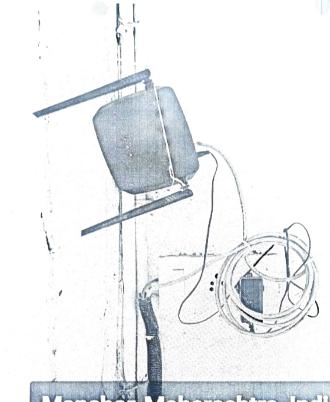
Principal
Annasaheb Awate College,
Manchar Dist Puna





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Manchar, Maharashtra, India

2X72+5V9, Ambegaon, Manchar, Maharashtra 410503, India Lat 19.013118°

Long 73.952507° 05/08/22 10:53 AM

### List of YouTube Video

Name of the Teacher: Dr. A. A .Kale

Department: Chemistry

Sr. No.	Class	Subject	Topic	Sub-topic	Link	Views as on 06/08/2022
1	M.Sc II	Organic Chemistry	Orgnaic Spectroscopy	<sup>13</sup> CNMR ( Lec3)	https://www.youtube.com/watch?v=YTRs_ptQv_E	141
2	M.Sc II	Organic Chemistry	Orgnaic Spectroscopy	<sup>13</sup> CNMR ( Lec2)	https://www.youtube.com/watch?v=sRUAz5SwcFE	67
3	M.Sc II	Organic Chemistry	Orgnaic Spectroscopy	<sup>13</sup> CNMR ( Lec1)	https://www.youtube.com/watch?v=cmmgbHJ1epc	101
4	M.Sc II	Organic Chemistry	Orgnaic Spectroscopy	<sup>1</sup> HNMR ( Lec1)	https://www.youtube.com/watch?v=6VaBBh5JsVo	117
5	T.Y.B.Sc,	Organic Chemistry	Strenth Of Organic Acids And Bases	Strength of Organic Acids and Bases	https://www.youtube.com/watch?v=XbJ379qddCk	2717
			1		Total Views	3026

Subject Teacher

Head Department of Chemistry A A College, Manchar, al Ambegaon Dist Pune

		ŁąQRywBbChA
		Thin Layer Chromatography (TLC)
	,	https://www.soundbaseco.com/
		https://www.youtube.com/waen- -gdmKGskCyh8
9	Preparation of benzoic acid from ethyl benzoate (ester hydrolysis)	https://www.youtube.com/www.h/
		https://www.youtube.com.watch/v -XLrDBM-Eluw
		Thin Layer Chromatography (TLC)
		https://www.youtube.com/watch?v _rMGQavOMAna;
	,	https://www_voutube.com_watch/s =qdmKGskCyh8
10	Preparation of p-acetamol from p-hydroxyaniline (acetylation)	https://www.youtube.com/watch?v=xY33L8SqMo4
		https://www.voutube.com_watch?v=ml.Rwm.Al\m>0
		Thin Layer Chromatography (TLC)
		https://www.voutube.com/ware-1. =rMGQavOMAme
		https://www.voutube.com/watch?v gdmkGskCyhs
1 1	Estimation of Acetamide	
	Aires To determine the second of the second	https://www.voutube.com/wate/s/salkRTslpJ-c
	Aim: To determine the amount of acetamide in the given solution.	https://www.youtube.com.watchav = Q0_vHXzYBmY
		https://www.voutube.com/watch/v
		https://www.voutube.gom/which/

Department of Chemistry
A. A. College, Manchar.
Tal. Ambagana Diet Puris-

https://www.youtube.com/watch/s/ XWJBFett-V14

Systematic Qualitative Analysis
Part- 2 (Detection of Elements)

[Element detection of Nitrogen Sulphur-Binary mixture identification]

https://www.youtube.com/watch/-=KW1MbeMo4zM

Systematic Qualitative Analysis Part 3

(Functional groups detection of Carboxylic acid- Binary mixture identification)

https://www.voutube.com/watch -6xMqrVp1gfg

Systematic Qualitative Analysis Part 4 (Functional groups detection of Phenol Aldehyde Ketone)

https://www.compbe.com/vancy/v RSp/y/segg

Systematic Qualitative Analysis
Part 5
(Functional group detection of
Carbohydrates, Amines.
Confirmative test for Urea,
Thiourea)

https://www.voutube.com/watch\_ \_lpCYEHBAzSc

General Organic Chemistry Practical Separation of binary Mixture

https://www.youtube.com/watch/s/ =gMICWRKaYFw

How to Determine Melting Point Boiling point of Organic Compound

Department of Chemistry

A A College, Manchar

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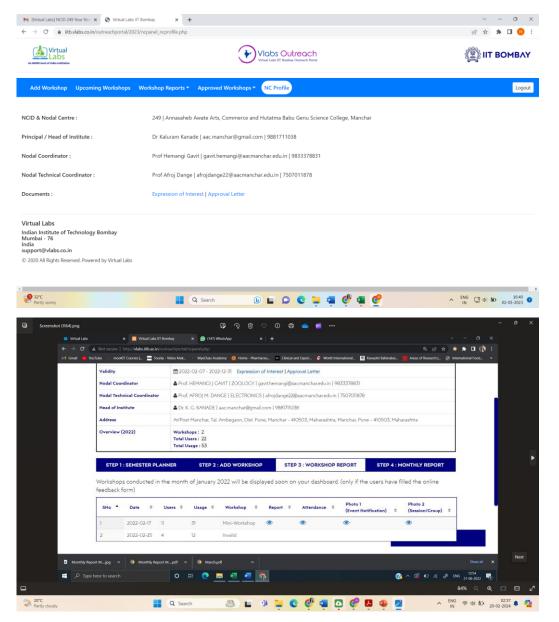
## LIST OF E-BOOKS FREE VERSION

## **Department of Chemistry**

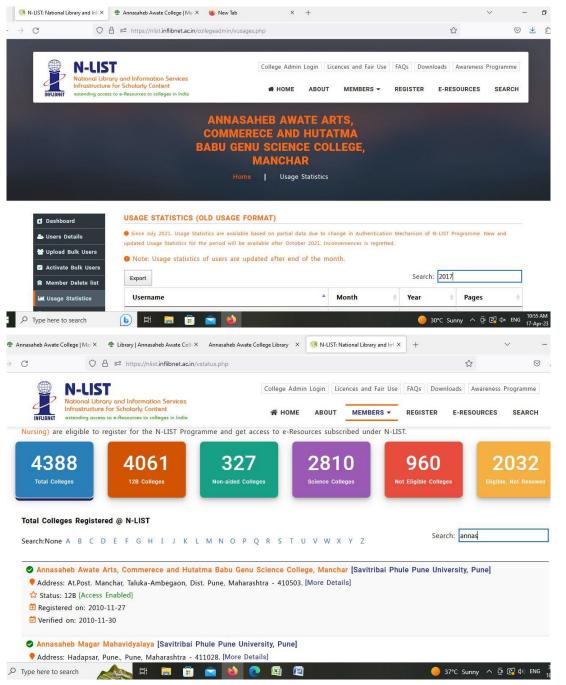
Sr. No.	Title	Authors	Edition
1	Advanced Organic Chemistry	Jerry March	
2		Carey and Sandberg	
	Advanced Organic Chemistry	Francis A Carov	
3	Advanced Organic Chemistry	Francis A. Carey	
4	Organic Chemistry	J. Clayden	
5	Protective groups in Organic synthesis	T. W. Greene	
6		Carey and Sandberg	
	Advanced Organic Chemistry Part B		
7	Modern Organic Synthesis- an Introduction	George S. Zweifel	
8	Organic Chemistry	P.P. Morrison and Boyd	+h
9	Spectrometric identification of organic compounds	R. M. Silverstein	7 <sup>th</sup>
10	Heterocyclic chemistry	Joule and Mills	
11	Named Reactions	Jie Jqack Li	4th Expan Ed.
12	Medicinal chemistry and drug discovery	Burger	
13	Introduction Medicinal Chemistry	Grahm and Patrick	
14	Modern Methods of Organic synthesis	William Caruthers	
15	Topics In Stereochemistry	NORMAN L. ALLINGER	
16	Photochemistry and Pericyclic Reactions	Jagdamba Singh.	
16	organic reaction and mechanism	P. S. Kalsi	
17	Stereochemistry of organic compounds	Nasipuri	
18	Mechanism and structure in Organic chemistry	E.S. Gould	
19	Principle of Bio-inorganic Chemistry	S. J. Lipard	
20	Inorganic chemistry	Shriver Atkin	
21	Molecular spectroscopy	C.N.Banwell and McKash	
22	Material characterization, introduction to microscopic and spectroscopic techniques	Yang Leng	2nd
23	Introduction to magnetic resonance spectroscopy ESR, NMR, NQR,	D. N. Sathyanarayana	
24	Thermal methods of analysis, principles, applications and problems	P.J. Haines	1st
25	Principle of instrumental analysis	Skoog, Waste, Holler	6th
26	Vogel's textbook of quantitative analysis	Vogel	6th
27	Practical High Performance chromatography	Varonika Meyer	5th
28	Liquid Chromatography, Mass spectrometry	Bob Ardey	2003 Ed.
29	Practical inductively coupled plasma spectroscopy	John R Deal	
30	Indian Pharmacopeia	Volume 1	7th
31	Indian Pharmacopeia	Volume 2	7th
	Introduction to pharmaceutical analytical chemistry	Stig Pederson-Bjergaard	2nd

Department of Chemistry A. A. College, Munchar fal, Apriceopa, Michar

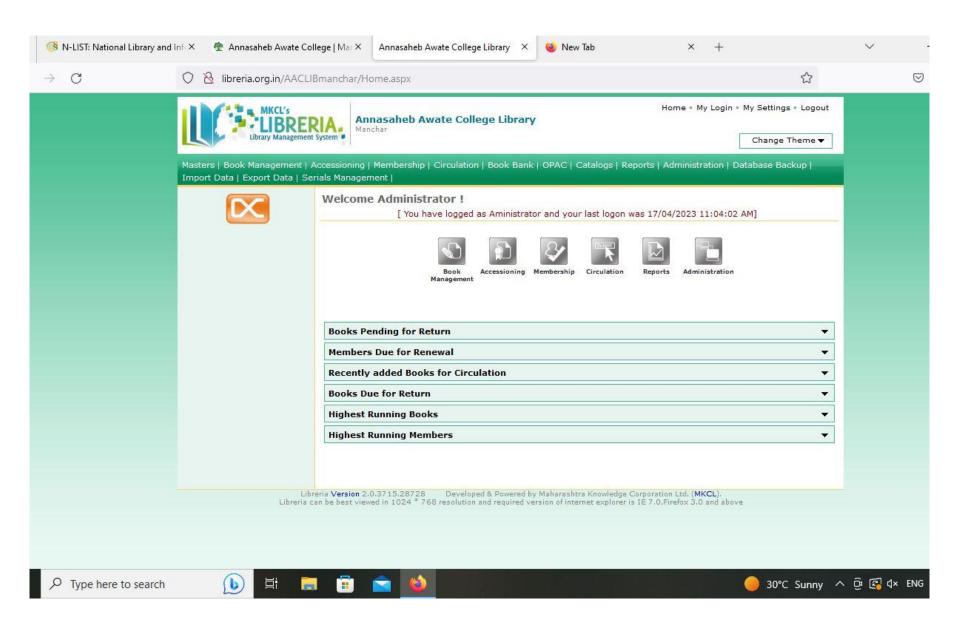
## **GLIMPSE OF ICT ENABLED FACILITIES & TOOLS USED**



Virtual Lab Nodal Centre



### **N-List Database**



Libreria





**Computer Laboratories** 





**Computer Laboratories** 

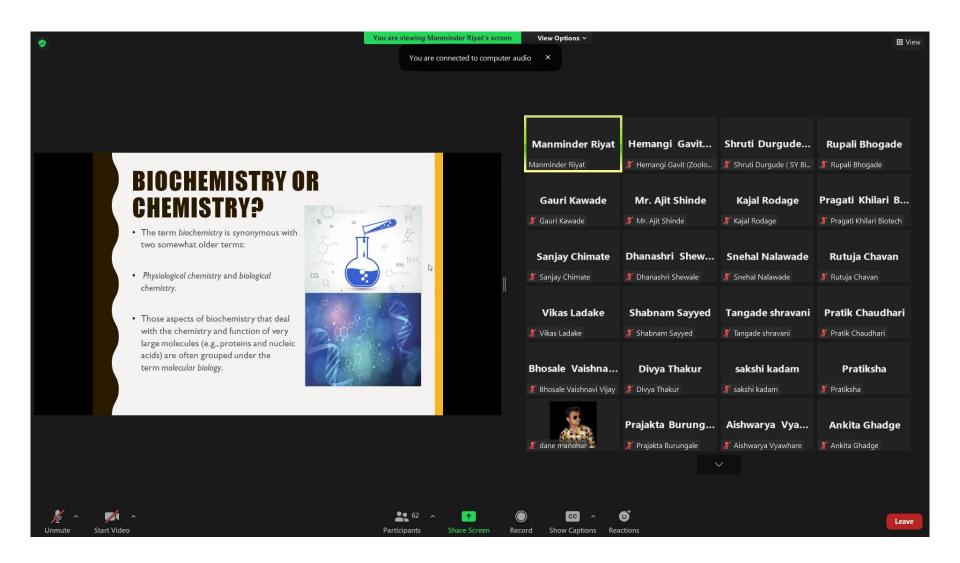


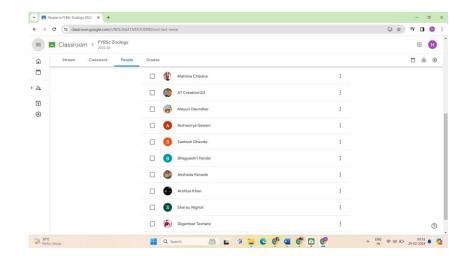


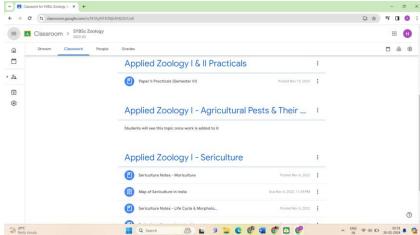
ICT enable Auditorium & Virtual Classroom

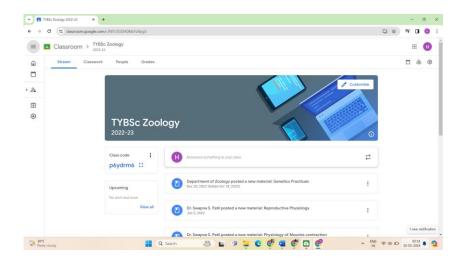


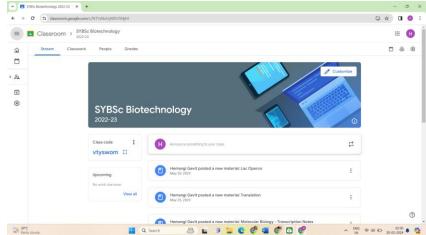
### GLIMPSE OF ICT ENABLED FACILITIES & TOOLS USED



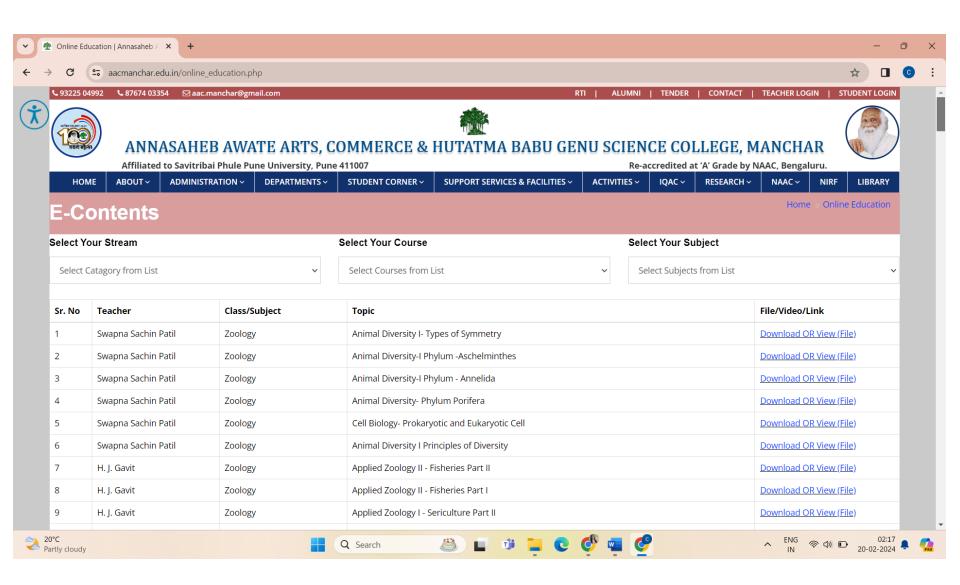




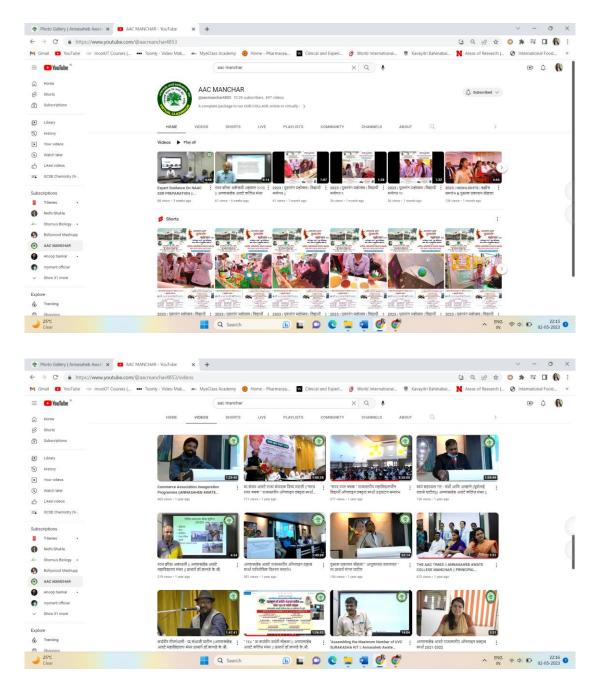




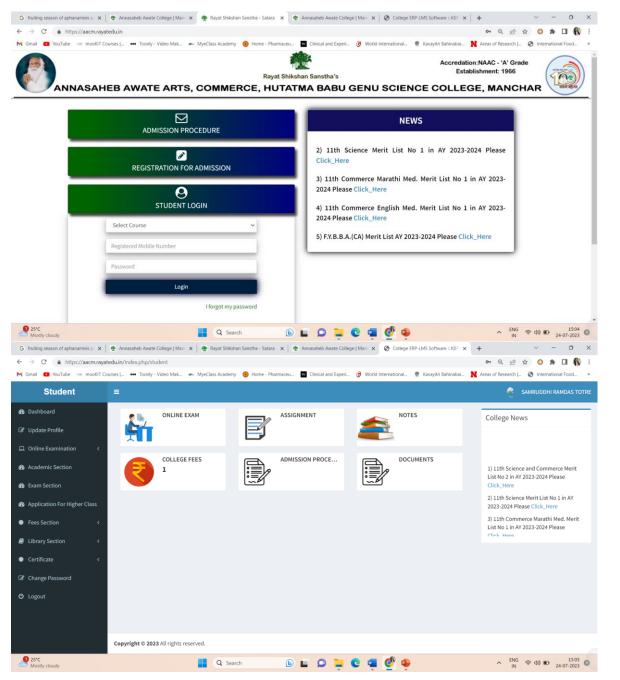
**Google Classroom** 



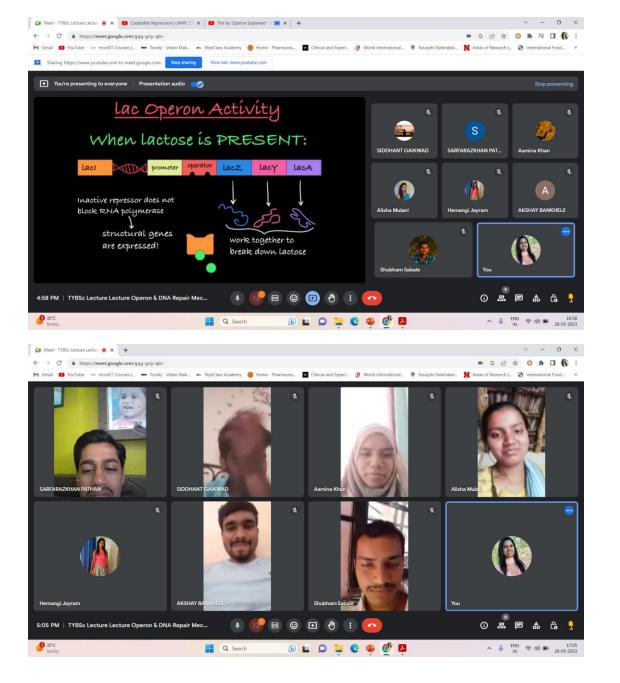
E-content available on College Website



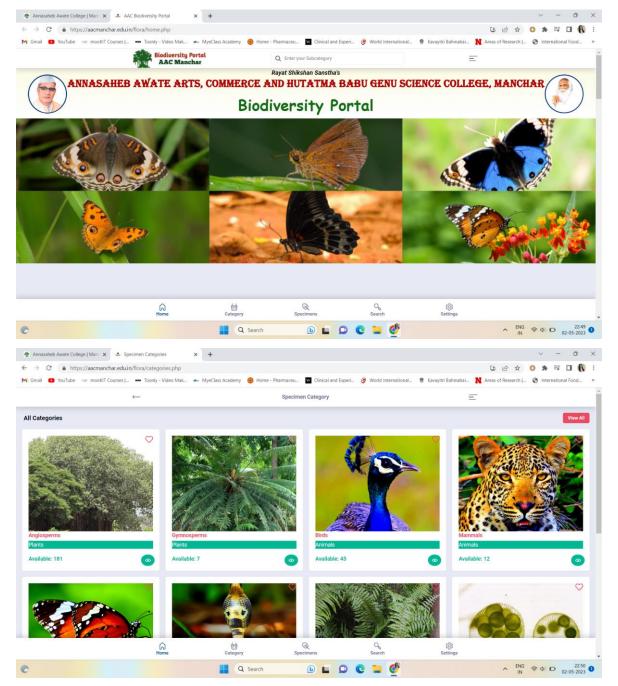
**College YouTube Channel** 



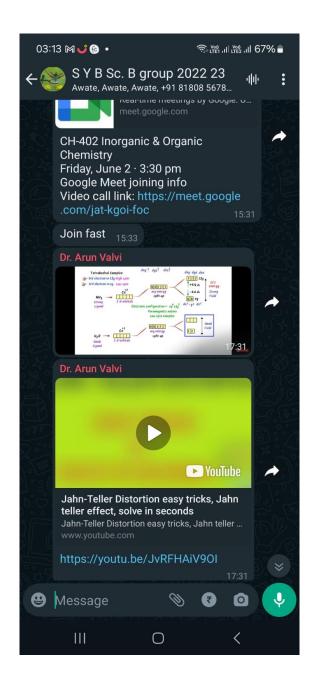
**Rayat ERP Software** 

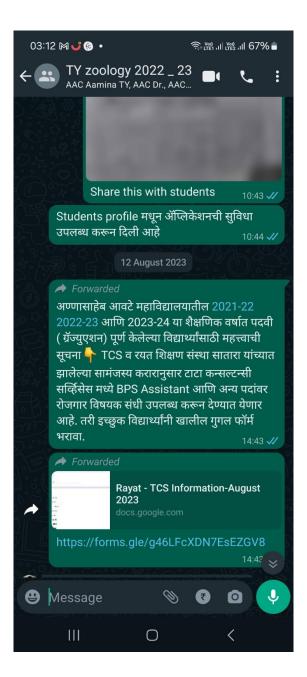


**Online Revision Lecture Via Google Meet** 

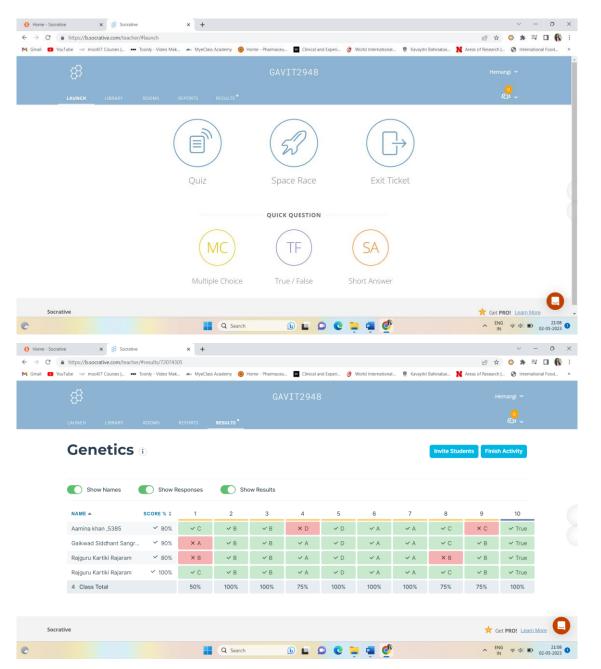


**Biodiversity Portal on College Website** 





WhatsApp Group



**Online Platform - Socrative**