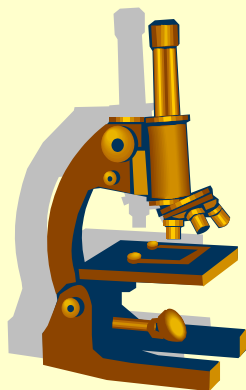




**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE
COLLEGE(GIRLS), KHAMMAM**

**ACTIVITIES REPORT
DEPARTMENT OF MICROBIOLOGY**

AY-2020-21



Science knows no country, because knowledge belongs to humanity, and
is the torch which illuminates the world.

- Louis Pasteur

As it was the Covid Pandemic and the Government of India announced lockdown, all the students were sent to home and as per the instructions of gurukulam, it is decided to conduct the academic activities, exams and other activities through online mode.

As per the instructions of gurukulam received on April 10th 2020, we have a meeting with principal and as per the instructions of the principal it was decided to conduct the classes, evaluation and interaction through zoom sessions and whatsapp groups.

In this scenario we have made an action plan according to the current situation and decided to follow it.

ONLINE EXTENSION LECTURE ON THE TOPIC “GENETICS” ON 12-04-2021

Speaker: Dr. Renuka, HOD Pingali Govt Degree College, Hanmakonda.

INTRODUCTION:

The Department of Microbiology conducted an online extension lecture program by inviting Dr.Renuka, a distinguished Senior faculty, HOD of Microbiology Pingali Govt Degree College, Hanmakonda.

OBJECTIVES:

- To give insights on EEE opportunities.
- To provide information on Higher education institutions which are providing M.Sc Microbiology and applied courses
- To give awareness on the employment opportunities in different industries and other companies.
- To give insights about the entrepreneurship opportunities in various fields.

OVERVIEW OF THE PROGRAM:

The Speaker started the session with her own career journey which motivated students and followed by the detailed overview of the each and every topic about genetics.

TTWRDC(W) KHAMMAM
Affiliated to Kakatiya University, Warangal

**WEBINAR ON
DNA REPLICATION**

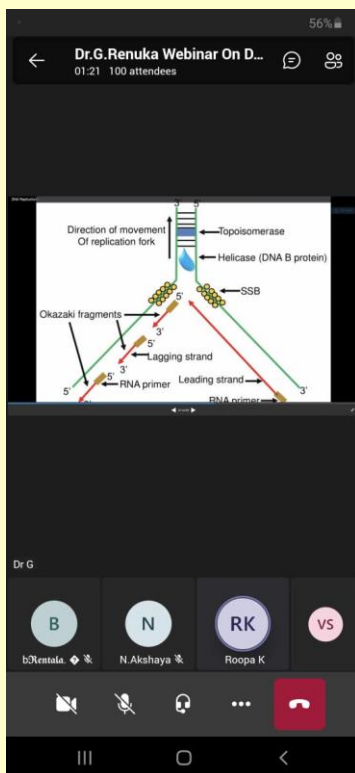
17th April 2021 at 02:00 PM
To join the Meeting log in to MS-Teams

SPEAKER
Dr.G. RENUKA
ASSISTANT PROFESSOR
DEPARTMENT OF
MICRO BIOLOGY
PINGIE GOVT. (UG&PG)
COLLEGE FOR WOMEN

ORGANIZED BY
DEPARTMENT OF LIFE SCIENCES
Dr.V.Swetha, B.Vasantha
k.Kalyani, K.Rajitha
MD.Reshma Begum

WEBINAR CONVENER
B. ROJA
PRINCIPAL
TTWRDC(W)
KHAMMAM

KEY TOPICS COVERED:



MENDEL EXPERIMENT:

- Mendel work
- Sex Linked Inheritance

GENE INTERACTIONS:

- Simple traits
- Complex traits
- Heredity

DNA & CHROMOSOMES:

- DNA structure
- Chromosomes

Q&A SESSION:

In the end of the program students asked their doubts regarding the topics they learned. The speaker also gave the clarifications.

ONLINE EXTENSION LECTURE ON THE TOPIC DNA REPLICATION and CAREER IN MICROBIOLOGY ON 17-04-2021

Speaker: K.Sri vidya, HOD, TSWRDC(W), Bhupalapalli.

INTRODUCTION:

The Department of Microbiology conducted an online extension lecture program by inviting Dr.K.Gopal KrishnaMurthy Associate Professor, Department of Genetics & Plant breeding, Agriculture College,, Aaswaraopet.

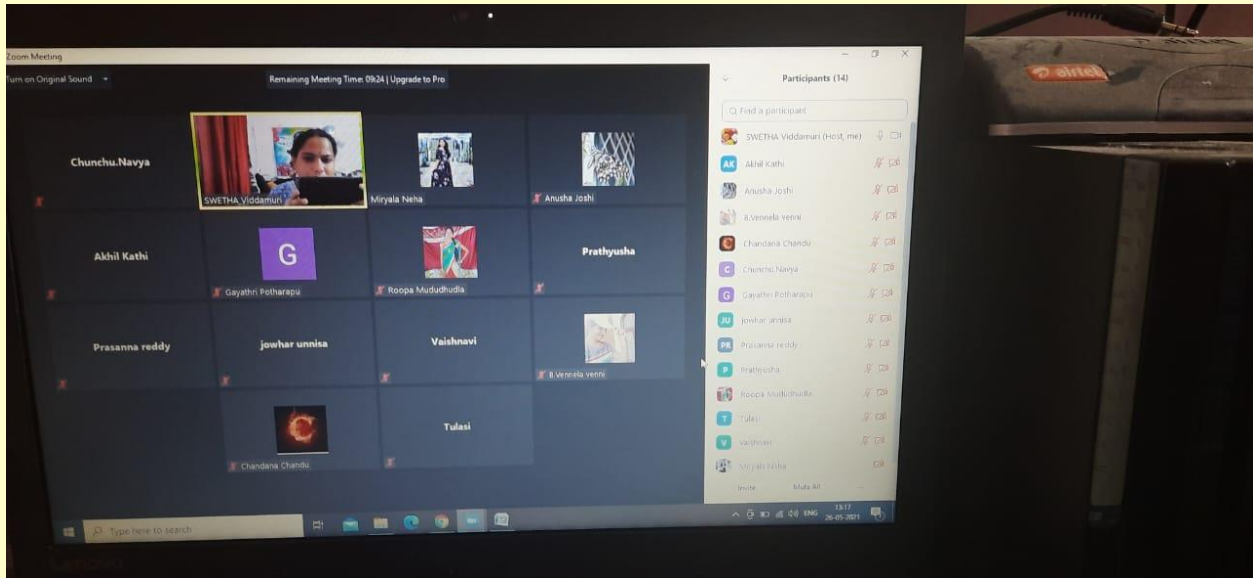
The image is a promotional poster for a webinar. At the top left is the logo of Kakatiya University, Warangal. In the center, it reads 'TSWRDC(W) KHAMMAM' and 'Affiliated to Kakatiya University, Warangal'. To the right is the logo of Gurukulam. The main title is 'Webinar on Genetics' in red. Below it, the date and time are 'On 12th April 2021 at 2:00 PM'. A small photo of a woman is shown next to the text 'To join the Meeting log in to Zoom'. On the left, a yellow box lists the speaker: 'SPEAKER DR K GOPALA KRISHNA MURTHY ASSOCIATE PROFESSOR DEPARTMENT OF GENETICS & PLANT BREEDING AGRICULTURAL COLLEGE ASHWARAOPET'. In the center, a green box lists the organizers: 'ORGANIZED BY DEPARTMENT OF LIFESCIENCE B.VASANTHA K.KALYANI K.RAJITHA MD RESHMA BEGUM V.SWETHA'. On the right, a yellow box lists the convener: 'WEBINAR CONVENER B. ROJA PRINCIPAL TSWRDC(W) KHAMMAM'. At the bottom right, the time '8:14 am' is displayed.

OBJECTIVES:

- To give insights on DNA Replication.
- To provide information on Higher education institutions which are providing M.Sc Microbiology and applied courses
- To give awareness on the different replication models.

OVERVIEW OF THE PROGRAM:

The Speaker started the session with her own career journey which motivated students and followed by the detailed overview of the each and every topic about DNA replication.



KEY TOPICS COVERED:

DNA REPLICATION:

- History of DNA replication
- Conservative model
- Semi Conservative model
- Polymerases

Q&A SESSION:

In the end of the program students asked their doubts regarding the topics they learned. The speaker also gave the clarifications.

ONLINE AWARENESS PROGRAM ON WORLD HEALTH DAY ON 12-05-2020

ABOUT THE PROGRAM:

The department of Microbiology in collaboration with the Department of Botany and Zoology had conducted the awareness program on the occasion of World Health day on 12th May through online mode.

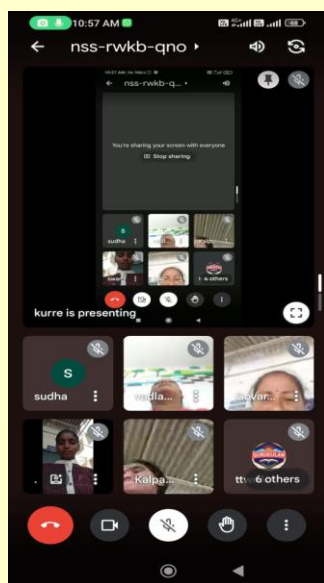
In this program the faculty has given valuable information about the world health day importance, types of health, importance of maintaining of good physical and mental health in this pandemic .

OBJECTIVES:

- To give information on physical health, mental health and spiritual health.
- To provide awareness on physical activities, meditation and other activities.

PROGRAM OUTLINE:

- As a part of this program all three years students of the all three departments have participated in this program.
- Students also discussed with each other on the topic.
- Shown some websites those helpful in the Yoga, exercise and meditation.



ONLINE STUDENT SEMINAR IN THE COLLEGE YOUTUBE CHANNEL ON THE TOPIC: TYPES OF CULTURE MEDIA

Date: 13-05-2021

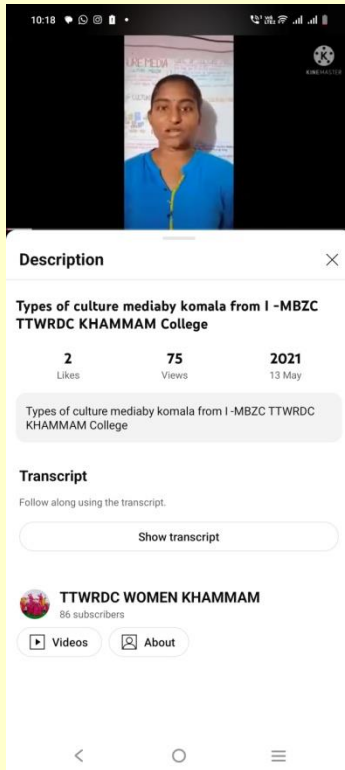
Student: Miss. Komala MZC 1st Year.

INTRODUCTION

In the Covid lockdown period as part of conducting the academics in the possible effective ways, we are conducting classes through Zoom meetings and Google meet apps. As a part of that to encourage the students in the subject and also to create interested environment the department of Microbiology invited the interested students to give online seminar on their interested topic. One of the students from 1st MZC Komala came forward and given the seminar on the topic Types of Culture Media.

OBJECTIVES

- To provide knowledge on types of culture media.
- To discuss the importance of culture media.
- To engage students in interactive learning in the lockdown period.
- To utilize online platforms effectively to reach to the students of most interior areas.



CONTENT OVERVIEW

The seminar covered the following key points:

1. Introduction to Culture Media

- Definition and significance.
- Historical background.

2.Types of culture media:

- Simple media
- Complex media
- Synthetic media
- Differential media

Link for the Online Seminar: <https://youtu.be/aMGwz-TAk3k?feature=shared>

TEACHING-LEARNING METHOD INVOLVED:

Participative Learning- By making the presentation and by sharing with other students the students gain more knowledge on the topic and she also experienced the real life teaching experience.

ONLINE AWARENESS PROGRAM ON WORLD ENVIRONMENT DAY ON 05-06-2021

ABOUT THE PROGRAM:

The department of Microbiology in collaboration with the Department of Botany and Zoology had conducted the awareness program on the occasion of World Environment day on 5th June through online mode.

In this program the faculty has shared valuable insights about the environment importance and the reasons for the present disasters.

OBJECTIVES:

- To give information on environmental issues, the measures have to be taken.
- To provide awareness on sustainable development in every aspect which is helpful for the mother earth.



TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE
(GIRLS), KHAMMAM



DEPARTMENT OF LIFE SCIENCES

organising

WORLD ENVIRONMENT DAY

Date: 5-6-2021 Time 11.30 to 12.30

Zoom link will be communicated soon

organising by
Department of Life sciences

PRINCIPAL

PROGRAM OUTLINE:

- As a part of this program all three years students of the all three departments have participated in this program.
- Students have shared their insights in the view of protecting the environment.
- Given awareness on usage of plastics, and other single use plastics and thus causing severe effects on the earth.
- Effects of pollution on the global warming.

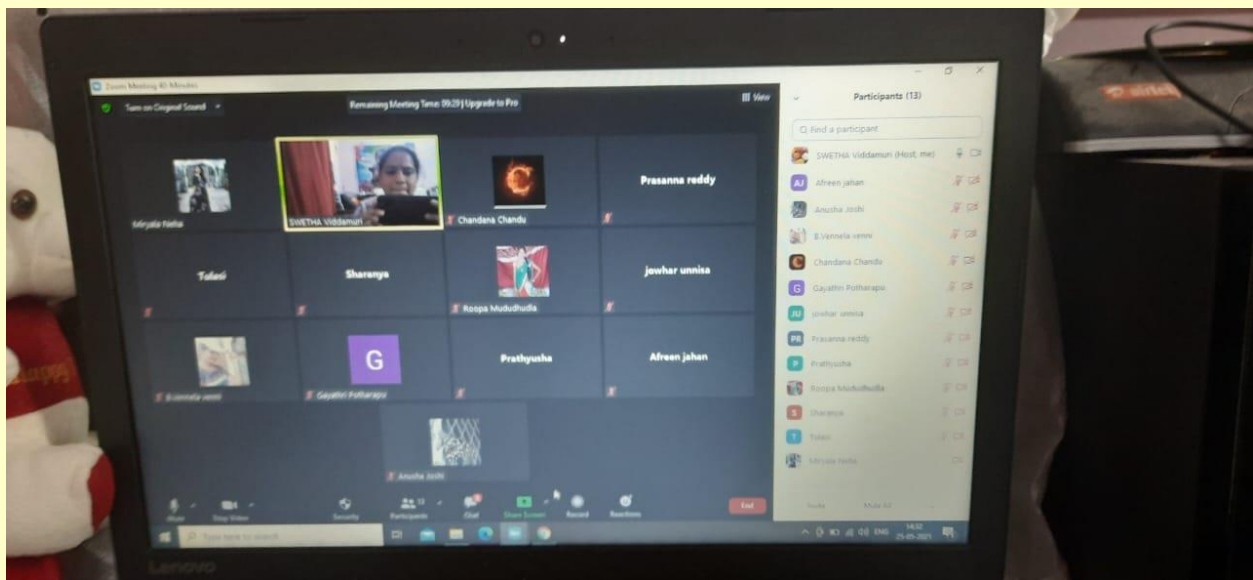
STUDENT WEBINAR ON INDUSTRIAL PRODUCTION OF BEER

DATE: MAY 28, 2021

PRESENTER: MISS. KOMALA, 1ST YEAR MZC STUDENT

INTRODUCTION

In the lockdown period the Department of Microbiology, hosted a student webinar on the topic industrial production of beer, presented by Komala 1st year MZC student. The webinar aimed to provide an in-depth understanding of the beer production process, covering the fermentation, technological advancements in brewing, and the industry's economic impact.



WEBINAR CONTENT

Overview of Beer Production

Sneha began the webinar with a brief history of beer and highlighting its cultural significance over the centuries.

Ingredients Used in Beer Production

Water: The most significant component, constituting about 90-95% of beer.

Malt: Typically barley, which is germinated and dried to convert starches into fermentable sugars.

Hops: Added for bitterness, flavor, and aroma, and also acts as a natural preservative.

Yeast: The microorganism responsible for fermentation, converting sugars into alcohol and carbon dioxide.

Brewing Process

Malting: Soaking barley to germinate and then drying it to produce malt.

Mashing: Mixing malt with hot water to extract fermentable sugars.

Boiling: Boiling the wort and adding hops.

Fermentation: Adding yeast to the wort to produce alcohol and CO₂.

Conditioning: Maturing the beer to develop flavor and carbonation.

Packaging: Bottling or canning the finished beer for distribution.

TEACHING-LEARNING PRACTICES:

- **Active Learning**-Students involved in the program by making their own notes, PPTs and through Q &A session they have participated in the session.

Q&A Session

Students have participated very actively in the entire session and also asked questions at the end of the webinar. The presenting student answered the questions.

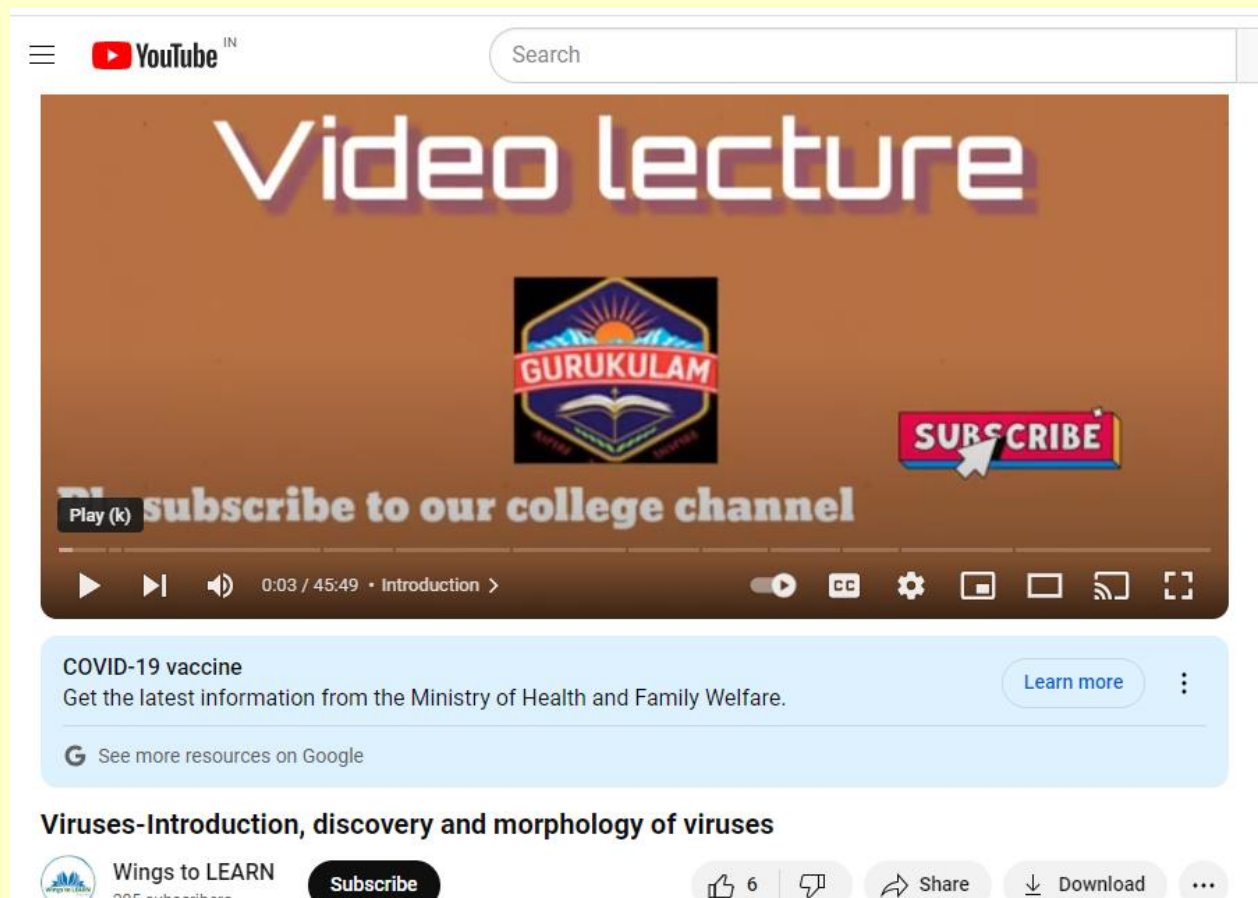
TEACHING THE TOPIC: VIRUSES- INTRODUCTION, DISCOVERY AND MORPHOLOGY USING ICT- PPT ON 11-05-2021

INTRODUCTION:

As a part of teaching in the online mode on the lockdown period, the department of Microbiology has Collaborated with the Department of Microbiology and conducted the online class through ZOOM using PPT. As the topic is very basic knowledge required by the Microbiology students and needed more visuals to understand the topic, we used the PPT for the class.

OBJECTIVE:


- To make the students understand the topic more in depth.
- To show the 3D images and more visuals on the topic.
- To provide more information on the topic



The image shows a screenshot of a YouTube video player. The video title is "Video lecture" and the channel name is "Wings to LEARN". The video content features a large "Video lecture" title, a logo for "GURUKULAM" with a book and a sun, and a "SUBSCRIBE" button. Below the video player, there is a search bar, a "COVID-19 vaccine" link, and a "Viruses-Introduction, discovery and morphology of viruses" link. The channel name "Wings to LEARN" is visible at the bottom left, along with a "Subscribe" button and a "6" likes icon.

YouTube™ Search

Video lecture



SUBSCRIBE

Play (k) subscribe to our college channel

0:03 / 45:49 • Introduction >

COVID-19 vaccine
Get the latest information from the Ministry of Health and Family Welfare. [Learn more](#)

See more resources on Google

Viruses-Introduction, discovery and morphology of viruses

Wings to LEARN
205 subscribers **Subscribe**

6 Share Download

VIDEO PREPARATION & KEY TOPICS COVERED:

- All the content required for the video class was gathered and the suitable images and media content was gathered.
- According to the topic all the content was arranged and voice over given and uploaded in the college YouTube channel
- Viruses Discovery
- Scientists involved in the discovery of viruses
- Morphology of different viruses

PARTICIPANTS:

- All 3 year students of both colleges have viewed the video

TEACHING & LEARNING PRACTICES:

- **Online Learning-** Student watched the video shared and made the notes with the content. They also watched the related images for more deep understanding.

ONLINE CLASSES TO THE STUDENTS USING ONLINE RESOURCES

In the COVID-19 Pandemic to keep the students in active mode and to engage them with the academic activities, as per the instructions of the Gurukulam and the Principal, the department of Microbiology has conducted many online classes in the respective semester topics using black board as well as ICT PPT tools.

The following are the links for the classes taught by the faculty of the Department.

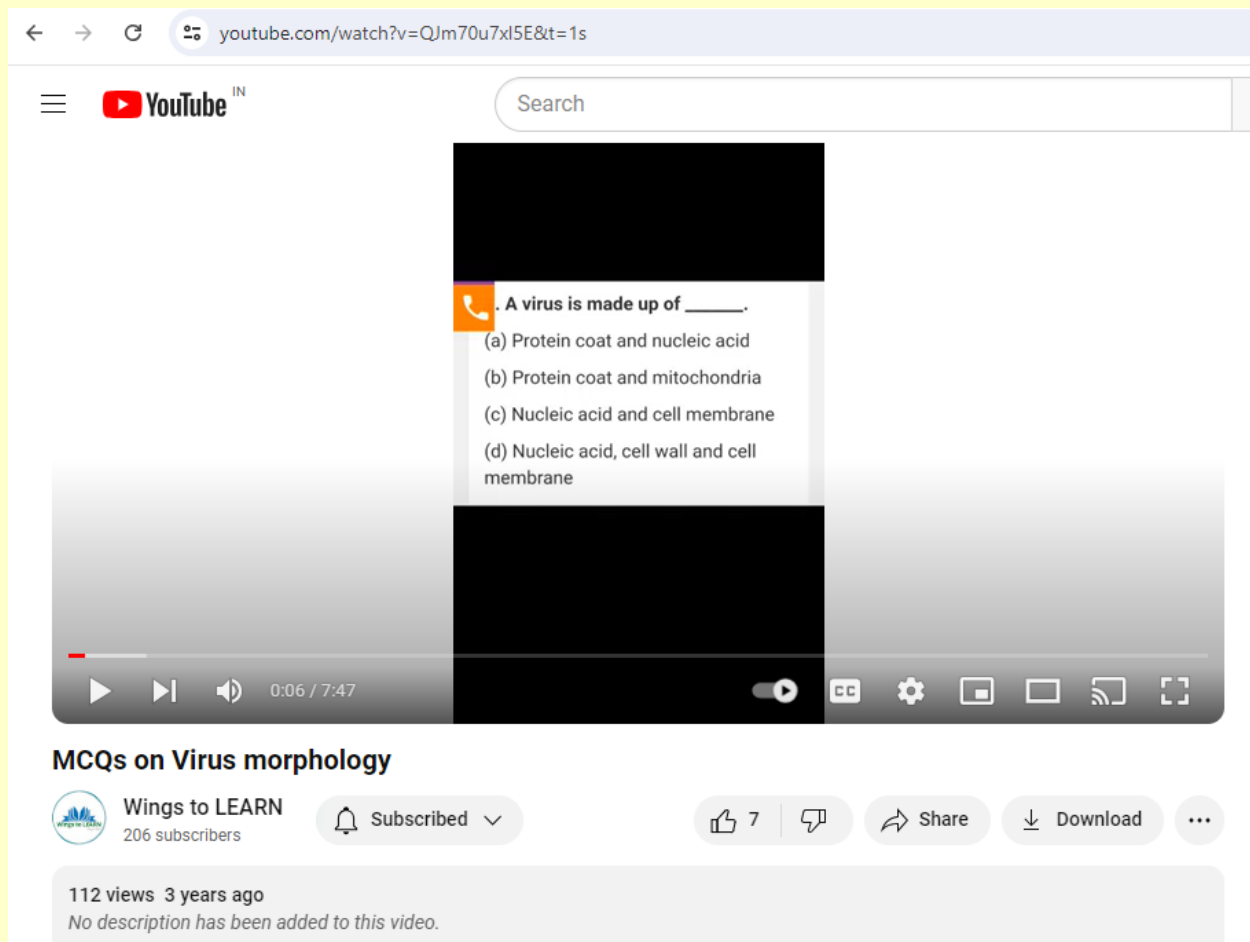
S.NO	NAME OF THE TOPIC	LINK FOR THE CLASS
1	History of Microbiology	https://youtu.be/KRPCqMCE-Sc?si=UZ-K_ucEW7y00QAB
2	Rhizosphere Part-1	https://youtu.be/3YRoWcKLo_0?si=zWaQRcdE6sm_sgx2
3	Rhizosphere Part-2	https://youtu.be/t8rdMIyBqAA?si=ZctDUtYTpCY3ckxX
4	Immunoglobulins Part -1	https://youtu.be/qjQ-w9s5IDY?si=MjmIBhsmN2trLnXW
5	Immunoglobulins Part -2	https://youtu.be/cgkaUAWwy5k?si=ECalqo6U_cJIqI96
6	Physical properties of soil Part -1	https://youtu.be/_vVbWFM00Xk
7	Physical properties of soil Part -2	https://youtu.be/zJvbvZ0Nje4
8	Fermented Foods -1	https://youtu.be/g4cL7C-ZETA
9	Fermented Foods -2	https://youtu.be/3hhJ9Delr4A
10	Physical Properties of Soil	https://youtu.be/pMPIn0XEc9g
11	Chemical Properties of Soil	https://youtu.be/bcg_Qyw7Wr8
12	Rhizosphere Soil	https://youtu.be/JZc2CnAH4Gc
13	Porifera characters	https://youtu.be/AEXZaa25Wm4

ONLINE MCQS ON VIRUS MORPHOLOGY ON 28-05-2021

ABOUT THE PROGRAM:

After giving lectures on the Topic Viruses we have also shared MCQs on the related topic shared by the TGTWRDC(W) Sricilla which helpful to the students to assess themselves on the knowledge they gained so far.

Link: <https://youtu.be/QJm70u7xl5E?si=5e7NYwiRc4nVZtiH>



The screenshot shows a YouTube video player interface. The video player is paused at 0:06 / 7:47. The video content displays a multiple-choice question: ". A virus is made up of ____." with four options: (a) Protein coat and nucleic acid, (b) Protein coat and mitochondria, (c) Nucleic acid and cell membrane, and (d) Nucleic acid, cell wall and cell membrane. The video title is "MCQs on Virus morphology" and the channel is "Wings to LEARN" with 206 subscribers. The video has 112 views and was uploaded 3 years ago. The description states "No description has been added to this video."

PROGRAM OVERVIEW:

- By sending the MCQ video to the students through the whatsapp and the students went through the video and they evaluated themselves.
- After sharing the video, meeting was held with the students through the zoom and discussed the point.

THNAK
YOU