



Taranath Shikshana Samsthe  
**LAXMI VENKATESH DESAI COLLEGE**

RAICHUR - 584 103, Karnataka (India)

Ph : 08532 (O) 240286, 240707 Fax : +91 8532 240707

e-mail: [lvdrccr@gmail.com](mailto:lvdrccr@gmail.com)

**WORK DONE DIARY**

UUCMS - ID: 19631

UNIFIED UNIVERSITY COLLEGE  
MANAGEMENT SYSTEM.

password: Welcome @123.

Email ID. Kamalanavarathna 2011@gmail.com.

M: 9449661205.

DV. KAMALA NAVARATHNA.

HOD. OF MICROBIOLOGY

LVD. COLLEGE

RAICHUR.

---



# Laxmi Venkatesh Desai College, Raichur

2020-2021

Time Table with effect from : July, Class: BSc I, II, III Department: Microbiology Section: Room No.

DAYS	9.40 a.m to 10.20 a.m	10.20 a.m to 11.10 a.m	11.10 a.m to 12.00 Noon	12.00 Noon to 12.50 p.m	12.50 p.m to 1.40 p.m	2.30 p.m to 1.20 p.m	1.20 p.m to 4.10 p.m	4.10 p.m to 5.00 p.m
MONDAY					BSc I KURE			
TUESDAY					BSc I			
WEDNESDAY			BSc III PRACTICE		BSc I			
THURSDAY	BSc I	BSc II	BSc III SEM-1					
FRIDAY								
SATURDAY	BSc III							

Head of Department: [Signature]

Principals - 03 hrs.  
Professors - 19 hrs  
24 hrs

Name of the Staff: Dr. Anandhan K. Anandhan

# Syllabus Allotted for Bsc I Sem L.V.D. College, Raichur

## Introduction to Microbiology and (CCM-1) Microbial Diversity.

### Unit 1. HISTORY OF DEVELOPMENT OF MICROBIOLOGY. 15 hrs

An Overview and scope of Microbiology Development of Microbiology as a discipline. Spontaneous generation vs biogenesis. Contributions of Antony Van Leeuwenhoek Louis Pasteur. Robert Koch. Joseph Lister, Alexander Fleming Development in the field of Soil Microbiology Contributions of Martinus. W. Beijerinck. Sergei. N. Winogradsky Selman A Waksman. Paul Ehrlich, E. I. Metchnikoff Edward Jenner.

### UNIT 2: DIVERSITY OF BACTERIA. 08 hrs.

System of classification Binomial Nomenclature Whittaker's 5 kingdoms and Carl Woese's 3 Kingdoms classification. System and their Utility Difference b/w prokaryotic and Eukaryotic cells. General Characteristics of Bacteria and Cell Organelles. Emphasis on distribution and Occurrence. Morphology Mode of Reproduction and economic imp.

### UNIT 3. DIVERSITY OF PROTOZOA. - 08 hrs

General Characteristics with special reference to Amoeba, Paramecium, Plasmodium, Leishmania and Giardia.

## PRACTICALS

1. Microbiology Good Laboratory Practice and Biosafety
2. To Study the principles and Application of important instruments biological safety, Cabinets Autoclave Incubator, BOD incubator Hot air Oven. Colony counter Inoculating loop

Light microscope, pH meter used in Microbiology Lab.

- 3) Preparation of culture media for microbial cultivation, Nutrient agar, potato Dextrose agar,
- 4) Sterilisation of medium using Autoclave and assessment of Sterility.
- 5) Sterilisation of glassware using Hot air Oven assessment of Sterility.
- 6) Sterilisation of heat sensitive materials by membrane filtration and environment by exposing NA agar plate to air.
- 7) Study of Rhizopus, Penicillium, Aspergillus using temporary mounts.
- 8) Study of Spirizya and Chlamydomonas Volvox, using temporary Mounts.
- 9) Study of the following protozoan using permanent mount.  
photographs, Amoeba, Entamoeba, Paramecium and Plasmodium.

BSc III SEMESTER. CCM-III

MICROBIAL GENETICS AND RECOMBINANT DNA TECH.

UNIT-1 GENETICS

1. Introduction to genetics discovery of genetics principle - pre mendelian concepts.  
Mendel's Laws and Classical genetics

UNIT-2 CHEMICAL BASIS OF HEREDITARY

Experimental Basis of evidences Contribution of Griffith, Avery, Hershey, and Chase.

-03/11

**UNIT-3. Nucleic Acids:**

Nucleic acids Chemical Composition of DNA & RNA  
 Watson and Crick model of DNA, Types of DNA  
 A, B, Z, and H, Supercoiling of DNA - 04 hrs.

**UNIT-4.**

Organisation of Genetic Material, Genomic  
 Organisation in Prokaryotes and Eukaryotes. - 02 hrs.

**UNIT-5**

DNA. Replication in prokaryotes, Semi  
 Conservative method, Rolling Circle model  
 Origin of Replication Primers, and templates  
 Replication forks, Unidirectional and Bidirectional  
 (Theta model) - 05 hrs.

**UNIT-6**

Genetic Recombination in bacteria  
 Conjugation  $F^+$ , vs.  $F^-$ ,  $Hfr$  vs.  $F^-$  vs.  $F^-$   
 Transformation, Griffith experiment and mechanism  
 Transduction, Generalised and Specialized  
 transduction - 05 hrs.

**UNIT-7**

Mutations.

Molecular Basis of mutations, Spontaneous  
 and Induced mutations, detection and  
 isolation of mutants.

Replica plate method. - 06 hrs.

**UNIT-8:**

Transposable elements

- A brief account - 01 hr.

## PRACTICALS:

1. Preparation of Master and Replica plate.
2. Study of the effect of chemical  $\text{HNO}_3$  and UV. mutagens on bacterial cells.
3. Study of Survival Curve of bacteria after exposure to ultraviolet (uv) light.
4. Isolation of Plasmid DNA from *E. coli*.
5. Study different conformations of Plasmid DNA through Agarose gel Electrophoresis.
6. Restriction digestion and in vitro ligation.
7. Estimation of DNA by DPA method.
8. Estimation of RNA by Oranist method.
9. Charts on Genetic Recombination in bacteria.
  1. Transformation
  2. Conjugation
  3. Transduction

## Genetic Engineering charts-

1. pBR322 and pUC18.
2. Bacteriophage.  $\lambda$ .
3. SV40
4. Gene cloning.

## DSEM-1

DISCIPLINE SPECIFIC ELECTIVE MICROBIOLOGY,  
FOOD AND DAIRY MICROBIOLOGY.

-06 hrs

## UNIT-1. Food as Substrate for Microbial Growth

Factors affect the microbial growth in food  
Food contamination Sources, Microbial Spoilage  
of food. milk, egg, Bread and Canned foods.

## UNIT-2

Principles and methods of food preservation  
-10 hrs.

1.) physical methods: High temp. Low temp, Irradiation  
Aseptic packaging, drying, Removal  
of microbes.

## UNIT-2) Chemical methods.

Salt, sugar, benzoates, Citric acid, ethylene  
oxide, nitrites and nitrites.

Food sanitation and Control. GMP, HACCP.

## UNIT-3: DAIRY PRODUCTS - 14 hrs.

Probiotics and food borne diseases.

Fermentation of dairy products yogurt, acidophilus  
milk, Kefir, Dahi and cheese.

probiotic definitions examples and Benefits  
Food intoxications by *Clostridium botulinum*  
and *Staphylococcus aureus*.

Food sanitation Infection - by *Salmonella*  
and *E. coli*.



## PRACTICALS

1. Isolation of microbes from Spoiled foods (vegetables and milks)
2. Isolation and Screening of microbes from Cereals and Cereal products
3. Quality Assessment of milks by methylene blue reduction test and Bred Count method.
4. Determination of Lactic acid from Curd.
5. Observation of Industrial microorganisms
6. Microbial fermentation estimation of organic and citric acids, Alcohol, Ethanol
7. Isolation and Screening of amylase and protease producing microbes
8. A visit to any educational institute industry to see on industrial fermentation and other downstream processing operations

## SEEMA-2 TECHNIQUES IN MICROBIOLOGY, SKILL ENHANCEMENT PROGRAMME.

TOTAL - hrs 30.

Unit: Microscopy. - 06 hrs

Introducing principles Construction and operations of different types of Microscope.  
Simple, Compound, phase Contrast, fluorescent and Electron microscope  
Microscopy. - 06 hrs

**UNIT - 2 STERILIZATION AND DISINFECTANTS**

Definition and Principles of Sterilization and disinfection, physical and chemical methods of sterilization

**UNIT - 3 MICROBIOLOGICAL MEDIA - 05hrs.**

Types of Chemical composition, preparation Simple media, Complex media, Special, differential, Inducible, enriched, enrichment and transport media, Preservation of media.

**UNIT - 4 PURE CULTURE TECHNIQUES - 06hrs**

Different methods of isolation of pure culture pour plate, streak plate method, spread plate method, Serial dilution method.

Maintenance and preservation of cultures.

**UNIT - 5 STAINING TECHNIQUES**

Nature, types of stains, principle, and mechanism of simple differential, Grams staining, AFB staining, Negative, structural staining, Gies staining, flagella staining, Capsule staining, food granules staining, Algae and fungal staining methods and wet mounting methods

**UNIT - 6 BIOTECHNIQUES**

Principles, types and Applications of Electrophoresis, Chromatography, Spectrophotometry and Centrifugation - 05hrs

## PRACTICES

1. Study of Compound Microscope.
2. To study the principle and Application of  
 1000 $\times$  instrument (Biological safety  
 Cabinets, autoclave, incubator, hot air Oven  
 Colony Counter pH meter used in the  
 microbiology lab.
3. Staining techniques Simple, Gram's Staining  
 Structural staining negative Staining.
4. Pure culture, pour plate, streak plate method  
 Spread plate and Serial dilutions
5. Study of Colony characteristics of Bacteria and fungi
6. Ray diagrams of phase. Contrast microscopy  
 and Electron microscopy.
7. Separation of mixtures by paper Chromatography
8. Study of Agarose electrophoresis and  
 polyacrylamide Gel Electrophoresis

PAGE.

Types of immunity - Innate and Acquired  
 immunity Biology of immune Cell. B-cells - Origin  
 development, maturation and surface molecules.  
 T-cells. Origin, development, maturation of  
 surface molecules. Subsets of T-cells. Structure and  
 function of B-cell and T-cell receptors.

Structure and functions and properties of Immune  
 cells. - Stem cell, T-cell, B-cell, NK cells,  
 Macrophage, Neutrophils, Eosinophils, Basophils  
 Mast cell, and Immune Organs, Bone marrow  
 Thymus, Lymph node, Spleen, GALT, MALT, CAC.

#### 4) Antigen - Antibody Reactions. - 03 hrs

Mechanism and principle of Antigen  
 Antibody reactions. Types and determination  
 of antigens. Mechanism Antibody reactions.  
 Radio immune assay, Ouchterlony double  
 diffusion technique. Complement fixation test  
 Ferritin linked immunosorbent assay and  
 Immuno blotting.

#### 5) Sample Collection, Transport and Diagnosis

Collection transport and culture - 02 hrs  
 of clinical samples. principle of different  
 diagnostic tests (ELISA) Immuno fluorescence  
 Agglutination based test. Complement  
 fixation PCR and DNA probes.

#### Practicals:

- Identify bacteria of *E. coli*, *Salmonella*,  
*Pseudomonas*, *Staphylococcus*, *Bacillus*,  
 using lab strains on the basis of cultural.

## Morphological and biochemical characteristics

- IMVIC, TSI, nitrate reduction, Urease production and Catalase test.
- ② Study of Bacterial flora of skin by swab method.
  - ③ Perform antibacterial sensitivity by Kirby - Bauer - method.
  4. Study Symptoms of the diseases with the help of photography. Polio, anthrax, herpes, chicken pox. HPV warts, AIDS, Candidiasis, dermatomyces (ring worms)
  5. Study of various stages of malaria parasite in RBCs using permanent mounts.
  6. Study micrographs of different types of soil.
  7. Study of Rhizobium from Legume root nodules.
  8. Study of plant pathogens, Tikka disease, Landal spike, Downy Mildew and Tomato Leaf Curl.

INSTRUMENTATION & BIOTECHNIQUES.

UNIT: I MICROSCOPY. - 02 hrs

Bright Field Microscope, Dark Field Microscope  
Phase Contrast Microscope, Fluorescence  
Microscope, Transmission Electron Microscope  
Scanning Microscope (Electron) (SEM)  
Micrometry.

UNIT - II STERILIZATION & STAINING TECHNIQUES

STERILIZATION TECHNIQUES. - 14 hrs

Definition of Germ, Sterilization, disinfection  
antiseptic, sanitizer, germicide, microbicides  
agents, Microbiostatic agents. Evaluation  
Antimicrobial agents. Tube dilution and  
agar plate techniques - well method and disk  
plate method. Moist heat, Dry heat, Hot air  
Oven, Tyndallization. Filtration Autoclave  
physical and chemical methods of sterilization.

STAINING TECHNIQUES.

Nature of dyes. Physical and chemical theories  
of staining principles, procedure and  
Applications of Simple staining,  
Negative staining, Differential staining  
Growth staining, Acid fast staining  
Structural staining - cell wall, endospores,  
flagella and Capsule staining - 10 hrs

## UNIT-3 CHROMATOGRAPHY.

Principle and applications of paper chromatography (including descending and 2D) Thin layer chromatography. Column packing and fraction collection. Gel filtration chromatography; ion-exchange chromatography, and Affinity chromatography. GLC, and HPLC. - 10 hrs.

### PRACTICALS -

1. Study of Compound Microscope to Visualize Bacterial Cells
2. Staining techniques Simple staining, gram staining and structural staining
3. Ray diagram of phase-contrast microscopy and Electron microscopy.
4. Measurement of size of cell by osmometry
5. Separation of mixtures by paper / thin layer chromatography
6. Demonstration of column packing in any form of column chromatography.
7. Study of Agarose electrophoresis and polyacrylamide Gel Electrophoresis (PAGE)
8. Determination of  $R_{fmax}$  for an unknown sample and Calculation of Retention Coefficient
9. Separation of components of a given mixture using a laboratory scale centrifuge
10. Understanding density gradient centrifugation with the help of platinum

## CEN-IV MICROBIAL PHYSIOLOGY, METABOLISM AND BIOCHEMISTRY.

### UNIT 2 BIOMOLECULES → 20hrs.

#### a) CARBOHYDRATES

Families of Monosaccharides, aldoses and ketoses, trioses, tetroses, pentoses, and hexoses. Stereo isomerism of monosaccharides, epimers. Mutarotation and anomers of glucose. Furanose and pyranose forms of glucose and fructose.

Disaccharides Concept of reducing and non reducing sugars. properties of polysaccharides, starch and glycogen. Structural polysaccharides cellulose peptidoglycan and chitin.

#### b) LIPIDS:

Definition and major classes of storage and structural lipids, storage lipids fatty acids and structure and functions. Essential fatty acids. Triacyl glycerol structure, functions and properties. Saponification. Structural lipids.

#### c) PROTEINS

Functions of proteins, primary structure of proteins, amino acid the building blocks of proteins. General formula of amino acids and



Concept of zwitterions. Titration Curve of amino acid and its significance, Classification, biochemical structure and rotation of standard protein amino acid

### (d) ENZYMES:

Structure of Enzymes, Apoenzymes and Co-factor, prosthetic group, TPP, Coenzymes NAD metal Co-factors classification of enzymes Mechanism of action of enzymes, active site, Cocks and Key hypothesis and induced fit hypothesis, Significance of hyperbolic, double reciprocal plots of enzyme activity, KM and allosteric mechanism definitions of term; enzyme Unit specific activity and turnover number.

### (e) VITAMINS

Classification and Characteristics with suitable examples. Sources and Importance.

### UNIT - II

### MICROBIAL GROWTH AND EFFECT ON ENVIRONMENT ON MICROBIAL GROWTH.

— 10 hrs.

Definition of growth, measurement of microbial growth, batch culture, continuous culture generation time Specific growth rate Synchronous growth classic growth curve

JULY & AUGUST - 2020

LVD College, Bhubaneswar

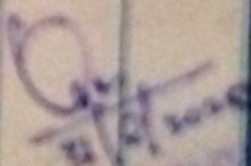
Date/Day	Class	Time	Topic Covered	No. of Students Present	Remarks
23/7/20 Wed.		12 N.	Reopening Day of College. Departmental meeting, Time table, distribution of syllabus		
24/7/20	Thursday		Sonitizing the dept.		
25/7/20	Friday		cleaning.		
26/7/20	Saturday		Preparation of notes.		
27/7/20	—		- Sunday -		
28/7/20	Monday		Preparation for practicals.		
29/7/20	Tuesday		Maintenance of pure cultures Observation and		
30/7/20	Wednesday		staining, preservation of cultures.		
31/7/20	Thursday		August - 2020		
1/8/20	Brit		General Holiday (National)		
2/8/20			Sunday.		
3/8/20	Mon	10:30	Bsc. I sem. Admission Counselling		
4/8/20	Tue		Sunday		
5/8/20	Wed		Admission Counselling.		
6/8/20	Thu		Admission Counselling.		
7/8/20	Tue		Staff meeting at Seminar		
8/8/20	Wed.	11:30 am.	hall regarding CBSC syllabus. (SELM)		
9/8/20	Thurs.		Prime Minister addressing about NEP-2020 Live telecast in Seminar hall.		
8/8/20	Fri		TA marks online entry. I sem.		
9/8/20	Sat		TA marks online entry. II sem.		
10/8/20			Sunday		

6/8/20  
2/8/20  
HEAD OF THE DEPARTMENT  
OF  
MICROBIOLOGY

August 2020

L.P.C. College, Noida

Date/Day	Class	Time	Topic/Event	No. of Students Present	Remarks
10/8/20			~ Sunday ~		
10/8/20	Wed.	10:30	Counselling for 10th Admission		
12/8/20	Thurs	10:30am	Counselling for Admission		
14/8/20	Fri	10:30	~ do ~		
15/8/20	Sat	10:30am	Independence Day Celebration (10th)		
16/8/20			~ Sunday ~		
17/8/20	Mon		Counselling and preparation of answer matter		
18/8/20	Tue		Counselling -		
19/8/20	Wed		~ do ~		
20/8/20	Thurs		~ do ~		
21/8/20	Fri		K.P.C.C. Examination Meeting		
22/8/20	Sat		Counselling -		
23/8/20			~ Sunday ~		
24/8/20	Mon		K.P.C.C. Examination		
25/8/20	Tue		Counselling -		
26/8/20	Wed		~ do ~		
27/8/20	Thurs		~ do ~		
28/8/20	Fri		Inaugural of Academic Year 2020-2021 Felicitation to Sri Ashok gauti in Auditorium		
29/8/20	Sat		Counselling		
30/8/20			~ Sunday ~		
31/8/20	Mon		Supranational function of Prof. Charan mallick ji		

  
 31/8/2020  
 HEAD OF THE DEPARTMENT  
 OF  
 MICROBIOLOGY

September 2020.

L.V.D. College, Raichur

Date / Day	Class	Time	Topic Covered	No. of Students Present	Remarks
1/9/20	Tue.		Counselling for Adm.		
2/9/20	Wed		- do -		
3/9/20	Thu		Equipment, Chemicals and Medic (list). preparation		
4/9/20	Fri		Counselling. preparation Price list of Equipments		
5/9/20	Sat		Teachers Day celebration in Seminar Hall.		
6/9/20	Sun		~~~~~ Sunday ~~~~~		
7/9/20	Mon		Counselling		
8/9/20	Tuesday		Training regarding Online class. in Seminar Hall.		
8/9/20	Tue		Counselling. Introduction and definition of Syllabus.		
9/9/20	Wed		Food Microbiology Syllabus and methods of Contamination		
10/9/20	Thu				
11/9/20	Fri	7pm	Introduction and Scope of Microbiology		
12/9/20	Sat				
13/9/20			~~~~~ Sunday ~~~~~		
14/9/20	Mon		Counselling		
15/9/20	Tue.		NSS Online Camp inaugural function.		
15/9/20	Wed.				

*Can*



September - 2020.

L.V.D. College, Raichur

Date / Day	Class	Time	Topic Covered	No. of Students Present	Remarks
16/9/20	Wed				
17/9/20	Thu		Bakrid (Holiday)		
		7:45	HKE Kalyan Karnataka		
			Uctar flag. Houston		
18/9/20	Fri		Admission Counselling.		
		III	class. Online.		
19/9/20	Sat		CVK. CET. Exams.		
20/9/20			<del>Sunday</del>		
21/9/20		10:30	Admission Counselling.		
			class -		
22/9/20		10:20	Admission Counselling.		
23/9/20					
24/9/20		11am	FDP. Webinar at our college		
25/9/20	Fri	11:30	FDP. Webinar at Comm. Hall in our College		
26/9/20	Sat		<del>Sunday</del>		
27/9/20	Sunday		<del>Sunday</del>		
28/9/20	Mon		Karnataka Bandh.		
29/9/20	Tue		Counselling for Adm.		
20/9/20	Tue	10:30	Allotment of syllabus and Topic Table setting.		
1/10/20	Wed	III	Group discussion and preparation		
2/10/20	Thurs		<del>Gandh. Jayanthi Holiday</del>		
3/10/20	Sat		Admission		

On 8/9/2020  
 HEAD OF THE DEPARTMENT  
 OF MICROBIOLOGY

October 2020

LVD College, Baidar

Date / Day	Class	Topic Covered	No. of Students Present	Remarks
5/10/20	---	Sunday		
5/10/20	Mon	Webinar on Niacin at Seminar Hall		
6/10/20	Pr D	Food as substrate for growth yeasts		
7/10/20	Pr D	Intrinsic and Extrinsic factors affecting the bacterial growth		
8/10/20	Thu 11			
9/10/20	Pr Sem	Introduction and development in field of microbiology		
10/10/20	Pr Sem	Aerobic chemical basis of heredity		
11/10/20	---	Sunday		
12/10/20	Pr D	Contamination of various fruits and vegetable products		
13/10/20	Pr D	Various methods involved in contamination		
14/10/20	Pr D	Contributor of Antony Van Leeuwenhoek		
15/10/20	Pr Sem	Contributor of Louis Pasteur		
16/10/20	S	Contributor of Robert Koch to the field of microbiology		
17/10/20	Pr Sem	Hendrik Laine's O laws of segregation		
18/10/20	---	Sunday		

OCTOBER-2020

LVD College, Kothur

Date/Day	Class	Time	Topic Covered	No. of Students Present	Remarks
19/10/20	V	9:00 am	General principles of contamination		
20/10/20	V	9:00 am	General principle of Spoilage and its importance		
21/10/20	V	9:20	General principles of preservation and its application		
22/10/20	V	9:00 am	Contribution of Alexander Fleming to the field of microbiology		
23/10/20			← Sunday →		
24/10/20			← Uga & Laloni →		
25/10/20	Mon	10:30	Contamination, Spoilage and preservation of milk and milk products.		
26/10/20	Tue	11:30	pasteurization and other pasteurization process and its uses.		
27/10/20			← Cold milk →		
28/10/20			← Vatsavathi Jayanthi →		
29/10/20			preparation of Noble and Tris table		
30/10/20			cells		
31/10/20			Dept meets		

40/2020  
 HEAD OF THE DEPARTMENT  
 MICROBIOLOGY



# NOVEMBER - 2021.

L.V.D. College, Raichur

Date / Day	Class	Time	Topic Covered	No. of Students Present	Remarks
1/11/20			<u>Sunday</u>		
2/11/20	BSc II	12:30	Sportage and Paper of Sportage of month.		
3/11/20					
4/11/20	BSc III	10:30	Mendelian Laws. of inheritance and Law of Segregation.		
5/11/20		10:30	Work of home.		
6/11/20		5pm	preparation of notes		
7/11/20			<u>do</u>		
8/11/20			<u>do</u>		
9/11/20			<u>do</u>		
10/11/20			<u>do</u>		
11/11/20			preparation of notes.		
12/11/20			Departmental meeting discuss about the syllabus		
13/11/20			SEER and DCEET I		
14/11/20		10:30 am	positions allotment and preparation of work		
15/11/20			<u>Sunday</u>		



# November

Day	Date	Notes
		<b>Analysis of the report</b>
		Good, practical, useful, clear
		Will influence debate on plan
		See 1, 11, 12, 13
		at House of Commons
		Exchange Community
		Parliament
		do
		do
		<b>and Sunday</b>
		Department of state
		and as available for part of
		expressions of the press
		10-11
		Country club, then goes home
		about
		days of mental health, beginning
		daily independent movement
		12-13
		Relief and analysis of the case
		do
		<b>Sunday</b>

Y  
1981



# DECEMBER

L.V.D. College, Raichur

Date / Day	Class	Time	Topic Covered	No. of Students Present	Remarks
1/12/20 T	BSc II	Even.	Food borne infections and systems.		
2/12/20 W			FDP Webinars. Webinars at Seronias Hall.		
3/12/20 T			Karnalcedas, Japotho.		
4/12/20 Fr			11am. FDP Webinar. - do - 11 to 1pm.		
5/12/20 S.	BSc II	Even	Notes preparation and distributed to the students		
6/12/20			Sunday -		
7/12/20 M.	BSc II	Even.	preservation of milk and milk products. Various methods involved		
8/12/20 T			Assessing the quality of milk		
9/12/20 W	"		Pasteurization and ultra pasteurization		
10/12/20 Th	BSc II		Probiotic and its application. Uses in prevention of diseases and increasing the immunity.		
11/12/20 Fr					
12/12/20 S.	BSc II		Food borne diseases and its control measure		
13/12/20			Sunday -		
14/12/20 M			BRB. College. Webinars (Honor, Vams)		
15/12/20 T			3:30 pm		

DECEMBER-2020

L.V.D. College, Raichur

Date/Day	Class	Time	Topic Covered	No. of Students Present	Remarks
16/12/20	Pass 5	12:50	Contamination, Spoilage and preservation of various food Cereals and cereal products		
17/12/20	W	12:50			
18/12/20	Th				
19/12/20	Fr		Discussion of notes and group discussion. Projects, practicals to be conducted. Programmes and Seminars		
20/12/20	S				
21/12/20			← Sunday →		
22/12/20	Pass 2	12:50	Food poisoning, and Intoxication caused by Bacteria.		
23/12/20	M	12:50			
24/12/20	T		Clostridium botulinum and Staphylococcus aureus poisoning and its effects and health hazards		
25/12/20	Th				
26/12/20	Fr		← Christmas Celebrations →		
27/12/20	Pass 2		Review of the topics		
28/12/20	S		← Sunday →		
29/12/20	Pass 4		Moulding, Compound microscopes, mostly principles and construction important and uses		
30/12/20	M				
31/12/20	T				
1/1/21	W		Lecture Country (Grooming and Safety)		

JANUARY 2021

L.V.D. College, Raichur

Date / Day	Class	Time	Topic Covered	No. of Students Present	Remarks
8/1/21 Th			← Casual leave →		
11/1/21 F	10:20 am		New year celebrations.		
2/1/21 S	10:20		Genome Organization in Prokaryotes.		
3/1/21			← Sunday →		
4/1/21 M.	V	12:50	Contamination Spoilage and preservation of milk and milk products.		
5/1/21 T	V	12:50	Introduction to Spoilage of milk and organisms involved.		
6/1/21 W	V	12:50	Fermented Dairy product.		
7/1/21 Th	I	9:20	Introduction to Various fields of Microbiology, Scope, Imp.		
8/1/21 Fr	I	2:30	Contributions of Louis Pasteur, Antony, Van Leeuwenhoek,		
9/1/21 S.	III	con	DNA and types of RNA.		
10/1/21			← Sunday →		
11/1/21 M.	V	12:50	Contamination of Cereal and Cereal products.		
12/1/21 T	V	12:50	Preservation methods of food. Swamy, Vivekanand function.		
13/1/21 W			← Casual leave →		
14/1/21 Th			← Sanjanth →		

Principal  
Venkatesh Desai  
RAICHUR

January 2021

L.V.D. College, Bhubaneswar

Date (Day)	Class	Time	Topic Covered	No. of Students Present	Remarks
15/1/21	II		Chemical basis of heredity		
F	I		Practical Introduction		
16/1/21	II	9:30	genomic Organization for Autotrophy	25	
S					
17/1/21			<del>Sunday</del>		
		5pm	(In Substrate Assisted function)		
18/1/21	II	12:00	Food as substrate for microbial growth. parameters internal/external		
M					
19/1/21	V	12:50	Various factors affecting and influencing the growth of micro		
T					
20/1/21	V	12:00	Regulation of noise		
W	V	2:30	Practical: preparation of media		
21/1/21	(OD exam)		and isolation and screening of micro from spoiled fruits and vegetables		
Th	Practical				
22/1/21	I	2:30	Contributors of Sacchar		
F			Joseph Woster, Edward		
23/1/21			Rhner, Robert Koch		
S					
24/1/21			<del>Sunday</del>		
	V	6:00	Working principle Construction and operation, types of Microscope		
25/1/21					
M					
26/1/21			<del>Republic Day</del>		
T					
27/1/21	II	12:00	Robustness: advantages/disadvantages		
W					
28/1/21	I	9:30	Plumbeous and Benzofuran physical and chemical		
Th					
29/1/21	V	Prac 2:30	Media preparation		
F					



JANUARY - 2021/FEB. L.V.D. College, Raichur

Date/Day	Class	Time	Topic Covered	No. of Students Present	Remarks
30/1/21	III	9:30	DNA Replication		
5.			Semi Conservative method Rolling circle		
31/1/21			<u>Sunday</u>		
01/2/21	I	12:30	Microbiological media		
Monday		1:40	and preservation of culture. Maintenance media		
		2:30	Reproduction:		
	III		Semi Conservative		
			Rolling circle DNA Replication		
2/2/21			<u>causal leave</u>		
3/2/21		12:50	Staining and staining		
	V		techniques.		
		2:30	Practical: Observations of		
	5p		Petriplates inoculated, staining		
			and identify the organism.		
		1-5pm	C.A exam duty on duty		
			(vigilance work)		
4/2/21	I	9:30	General characteristics of		
			Bacteria: Occurrence and		
			morphology		
		10:20	preparation of replica		
	III Sem	12:	plates and master		
			plates, preparation of		
			media and inoculation		
			M.D. mounts		
5/2/21	I Sem	2:30	Contributions of Scientist.		

31/1/2021

HEAD OF THE DEPT  
of  
MICROBIOLOGY



February - 2021

L.V.D. College, Rajshahi

Date/Day	Class	Time	Topic Covered	No. of Students Present	Remarks
6/2/21	III	9:20	Replication of DNA in prokaryotic, Supercoiling DNA Replication fork and primase Importance		
6/2/21	I	10:20	Contribution of Sergei N. Winogradsky, Schwan, Abriattam, Waksman to the field of Microbiology.		
		11:20	Marking the attendance preparation of notes.		
7/2/21			<u>Sunday</u>		
8/2/21	BSC 8.	12:40	Stains and Staining techniques. method procedure importance and its use.		
			Types of Stains Simple, Differential and Structural Staining techniques.		
8/2/21	BSC 11.	2:30	Primase and Template and Unidirectional and Bidirectional (Theta Model)		
9/2/2021			BSC 8 Sem. First		
12-1 pm.			internal Test conducted (DSEDM. Food and Dairy Microbiol.)		

February, 2021

L.V.D. College, Raichur

Date/Day	Class	Time	Topic Covered	No. of Students Present	Remarks
9/2/2021		8:20 - 4:10 pm.	Bsc I Sem internal Exams Theory, Constructibility of Science First Unit.		
10/2/2021	Bsc II Sem	10:30 - 12 Noon	Bsc III Sem internal Test Theory: Staining Techniques. Differential Staining Techniques.		
		12:50 - 2 pm.	Uses and principle procedure. Pre. Preparation of media N.A. IFA, MacConkey agar for study of colony character and identification of various bacteria/fungi.		
		3:20 pm	preparation of notes and Test paper. Correction of 4 internal Assessment of Bsc I and II sem. DSEM. Food / Dairy Microbiology.		
11/2/2021	Bsc I Sem.	9:30 am	Contributions of Kili Metchnikoff to the field of immunology		
	Bsc III Sem	10:20 - 1 pm	Study of Survival curve of Bacteria after exposure to UV radiations.		
			preparation of NB, Serial dilution techn. Inoculation exposure to UV light and incubated.		





February - 2021

L.V.D. College, Raichur

Date / Day	Class	Time	Topic Covered	No. of Students Present	Remarks
12/2/2021	Bsc II	2:30-3:30	Contribution of Norman William Beijerinck and Paul Ehrlich to the field of Microbiology.		
		10:20-11:30	paper evaluation		
		2:20-3:00	First internal		
13/2/2021	Bsc III	9:30	Mutation Introduction Types of mutation		
14/2/2021			Valentine's Day Catherine's 50th wedding Anniversary, Celebration		
15/2/2021	Bsc I sem	12:50	Differential Staining Techniques.		
			Acid and non acid fast staining tests		
	Bsc III	2:30	Types of Mutation Induced and Spontaneous mutation Autogenic / Acquired mutation Antigenic Importance etc		
		3:20 5pm	Revision of notes preparation of notes and Question paper Setting.		
16/2/2021	Bsc V sem.		Biotechniques - Introduction Chromatography, Electrophoresis		

February, - 2021.

LVD College, Rohtak

Date/Day	Class	Time	Topic Covered	No. of Students Present	Remarks
Bsc. D	D		Media preparation		
		8:30			
		5 pm	Media: Nutrient agar media, Macleod's agar media, Peptone water and 10% media, SDA media and streaking and pouring inoculation with unknown samples. Incubation and later observation of colonies growth.		
14/2/2021	Bsc D	Wed 5pm	Microbiology practical - observations of <i>Schizotrichia</i>		
18/2/2021			19/2/2021 20/2/2021 Microbiology paper setting Aulbairg Voluntary		
21/2/2021			22/2/2021 23/2/2021 and 24/2/2021 Biotechnology paper setting at Aulbairg		
25/2/2021			System classification of Bacteria		
9:30	Bsc 2				
10:30	1st yr		R.H. Whittaker & King's classification Difference b/w prokaryotes and Eukaryotes. General characteristics of bacteria and its economic importance		

February - 2021

L.V.D. College, Raichur

Date/Day	Class	Time	Topic Covered	No. of Students Present	Remarks
10/20	Bsc III		<b>Reactants</b>		
12 pm	6 am.		Study of survival time of bacteria after exposure to ultraviolet (UV) light.		
			procedure preparation of media and observation		
12:1 pm					
Bsc I sem			Theory: Economic importance of bacteria. Carl Woese's 3 kingdoms classification based on RNA and Occurrence.		
			General character of Amoeba.		
25/2/20			Induced mutations (Pantocinum)		
12-1 pm			1. Base pair analogue.		
Bsc III sem			2. alkylating agents		
			3. Deaminations		
			orotic acids.		
2:30-3:30			General Character of Amoeba, Plasmodium and paramecium.		
Bsc I sem			Importance of these organisms		
			Induced Mutations		
27/2/20			Hydroxylation		
Bsc III sem			Oxidative reactions		
9:30			Intercalating agents and Radiation.		
10:30					
			Deletions: Replica plate method		

# February 2004 / March

L.V.D. College, Bhubaneswar

Date	Time	Day	Topic Covered	No. of Students Present	Remarks
27/2/2004			no. of days		
28/2/2004			no. of days		
29/2/2004			no. of days		
Monday			no. of days		
2/3/2004	1:00	Tue	Practical internal Test for B Com.		
	2:30		Practical internal Test for B Com.		
	3:30		Practical internal Test for B Com.		
	4:30		Practical internal Test for B Com.		
3/3/2004			Theory internal test for B Com. Students		
4/3/2004			Theory internal for B Com. I & II sem.		
			Practical Assessment		
5/3/2004			do — Test		
			Practical Assessment		
6/3/2004			do —		
7/3/2004			Sunday		
8/3/2004			International Women Day		
Mon	11:00 am		Celebration		
			S. Anand — Janaki Pushit		
			Bank officer. R.R. Dec		
9/3/2004	10:30		Record Corrections of B Com. I, II & III sem.		
Tue	5:30				

Head of the Institution  
 L.V.D. College, Bhubaneswar

Nov 2021

LVD College, Bhubaneswar

Date	Day	Time	Topic Covered	No. of Students Present	Remarks
25/11/21	Tue	11:20 AM	Class given to students Second correction		
		11:30 AM	Practical Time table Discussion about Setting batches with all the HODs in Botany Dept Correction of practical test paper for B.Sc. I sem - Nov-2021.		
27/11/21	Thu	10:30 AM	Practical test paper for B.Sc. I sem - Nov-2021.		
28/11/21	Fri	10:30 AM	Second correction Correction of practical papers Theory / Practical		
29/11/21	Sat	10:30 AM	Preparation for practical rooms.		
30/11/21	Sund		Sunday - Holiday		
1/12/21	Mon		Freshers party. (Welcome function) No classes Preparation and arrangement of practicals		(10)
6/12/21	Fri	10:30 AM	Practical Exam (Welcome function) preparative		(10)
17/12/21	Wed		Preparative — Last working day —		(10) 17/12/21

Date/Day	Class	Time	Topic Covered	No. of Students Present	Remarks
18/3/2021	Thurs	9 am 5 pm	Practical Exams for Bsc I Sem.		-02 batches
19/3/2021	Fri	9 am 5 pm	Practical Exams for Bsc III Sem.		-02 batches
20/3/2021	Sat	9:30 am 5 pm	Practical Exams for Bsc I Sem.		-03 batches.
21/3/2021	Sun		Sunday Holiday		
22/3/2021	Mon		Lab. cleaning and discarding of microbial cultures and		
23/3/2021	Tue		resetting the glassware.		
Vocative April / May - 2020 June - 2021.					
24/3/2021	Wed.				

Department of Microbiology  
L.V.D. COLLEGE,  
RAICHUR-584 103.

Laxmi Venkatesh Desai College,  
RAICHUR.