HINDI MAHAVIDYALAYA

(AUTONOMOUS & NAAC RE-ACCREDITED)

(Affiliated to Osmania University)

Nallakunta, Hyderabad

B.Sc. I YEAR SEMESTER I & II

DEPARTMENT OF MICROBIOLOGY

(2020-2021)

HINDI MAHAVIDYALAYA

(AUTONOMOUS & NAAC RE-ACCREDITED)

BOARD OF STUDIES

DEPARTMENT OF MICROBIOLOGY

Chairperson

Ms. Fareeda Khatoon
Head- Department of Microbiology
Hindi Mahavidyalaya
Nallakunta, Hyderabad

University Nominee

Dr. Bhukya Bhima
Chairperson-BOS
Department of Microbiology,
Osmania University, Hyderabad

Members of BOS

1. Dr K Anuradha
Head of the department
Department of Microbiology
Bhavan's Vivekananda College of Science Humanities and Commerce,
Hyderabad

2. Dr. Sreedevi
Head of the department
Department of Microbiology,
St. Pious Degree and PG College
Hyderabad

Chairperson

University Nominee

HEAD
Department of Microbiology
Osmania University,
Hyderabad-500 007.

Members

1.

2.

3.

Principal

PRINCIPAL
HINDI MAHA VIDYALAYA
(AUTONOMOUS)
Arts, Commerce & Science
Nallakunta, Hyderabad-44.

HINDI MAHAVIDYALAYA, NALLAKUNTA, HYDERABAD
(AUTONOMOUS)

COMPOSITION OF THE BOARD OF STUDIES IN AN AUTONOMOUS COLLEGE I.

Composition: Department of Microbiology

1. Head of the Department concerned (Chairman)
   Ms.Fareeda Khatoon, Head-Department of Microbiology
2. The entire faculty of each specialization
   1. Ms.Fareeda Khatoon
3. One expert to be nominated by the Vice Chancellor from a panel of six recommended by the College Principal
   1. Dr. Bhukya Bhimu, Chairperson, BOS, Dept. of Microbiology, Osmania University, Hyderabad.
4. Two experts on the subject from outside the college to be nominated by the Academic Council.
   1. Dr.S.Sreedevi, Head of Microbiology Department, St. Pious X Degree & PG College for women, Snehapuri Colony, Opp. HMT Bus stop, Near Habsiguda, Nacharam Road, Hyderabad.
   2. Dr.K.Anuradha, Head of Microbiology Department, Bhavan's Vivekananda College of Science, Humanities & Commerce Sainikpuri, Hyderabad.
5. One postgraduate meritorious alumnus to be nominated by the Principal. The Chairman,Board of Studies, may with the approval of the Principal of the College. 1. Dr.G.Madhusudhan Reddy
   2. Smt.Vemula Sreelatha

(a) Experts from outside the College whenever special courses of studies are to be formulated. -To be nominated.

(b) Other members of staff of the same faculty.

HINDI MAHAVIDYALAYA, NALLAKUNTA, HYDERABAD
(AUTONOMOUS)
DEPARTMENT OF Microbiology
AGENDA OF THE MEETING

4.1 Welcome address by the chair.

4.2 Previous Meeting Details.

4.3 Details of choice based credit system.

4.4 Discussion and Distribution of Common Core Syllabus for all the Semesters (I and II)

4.5 Marks allotted for internal and end semester exams.

4.6 Discussion on Pattern and model paper of Semester Exam and internal exam for all the Semesters (I and II)

4.7 Discussion on Practical exam model paper for all the Semesters (I and II)

4.8 Panel of Examiners

4.9 Any other matter

4.10 Vote of thanks

HINDI MAHAVIDYALAYA, NALLAKUNTA, HYDERABAD
(AUTONOMOUS)
DEPARTMENT OF Microbiology
BOARD OF STUDIES
Academic Year – 2020-2021
Minutes of BOS Meeting

BOS meeting of the Department of Microbiology was held on 25th September 2020
The following members were present

Dr. Bhima Bhukya - University Nominee — 9494661624

Ms.Fareeda Khatoon - Chairperson

Dr.S.Sreedevi - Member of BOS —

Dr.K.Anuradha - Member of BOS —

4.1 Welcome address by the chair

The chair welcomed the University Nominee, Chairperson BOS, O.U. Department of Microbiology and Members of B.O.S.

4.2 Previous Meeting details

The CBCS system has been introduced by Osmania University from 2016-17. The last BOS meeting was held on24th July 2018.The theory and practical syllabus of III year of B.Sc., question paper pattern for theory and practical, internal assessment pattern, practical examination scheme and panel of examiners were discussed and approved by all the BOS Members in previous BOS meeting.

4.3 Details of choice based credit system.

Members were informed that according to TSCHE norms we are following the CBCS from the Academic Year 2016-17.From 2020-2021 onwards we will follow the changed pattern of CBCS as per the Osmania University norms with minor changes.

4.4 Discussion and Distribution of Common Core Syllabus for semesters I and II.

i. Members were informed by the chair that Department of Microbiology, Hindi Mahavidyalaya is following common core syllabus prescribed by Osmania University with few changes for B.Sc. I YEAR in I and II semesters.
ii. The syllabus comprise of 4 units.
iii. Syllabus copy for both the semesters is enclosed.
iv. Syllabus was approved by the Members of BOS.

4.5 Discussion on pattern and Model Paper of Semester and Internal Exam:

1. It was informed by the department that in each Semester Two Internal Assessment will be conducted for 30 marks. The internal assessment will have three sections.

Section – A 20 multiple choice questions each carries 1 marks (20x 1=20M),

Section – B Assignment – 5 Marks

Section – C Seminar – 5 Marks

Average of marks of these two assessments will be taken.

4.6 Marks allotted for Internal and End Semester Exam

1. Continuous Evaluation is of 30 marks in which 20 marks are for Internal assessment which will be conducted, where students have to answer 20 MCQs in 30 minutes. Each question carries 1 mark. In each Semester two Internal assessments of 20 Marks will be conducted and an average of both the assessments will be added to the marks of theory exam(Section A) SEE.
2. Theory Question paper is of 70 marks.
3. Total allotted marks are 100 for each theory paper (I & II).

The distribution of marks was approved by the Members of BOS.

1. It was also informed by the department that for B.SC II and III year Two Assessment will be conducted for 30 marks. The average of marks of these two assessment Of Section A will be taken.

2. Semester exam will be conducted as per the Almanac which will be provided by the exam branch. Internal exam duration will be 30 Min and Semester exam duration will be of 2 ½ hrs.

4. Model Question paper for Semester I and Semester II was discussed. Theory paper for each Semester will have 2 sections.

i) Section A contains 8 short Questions. The student has to answer six questions. Each Question carries 4 Marks (6X3=18 Marks)

ii) Section B contains 4 Essay type Questions with internal choice. Each Question carries 11½ Marks (4X13=52 Marks)

- Pattern of Model Theory Question Papers for Paper I and Paper II are enclosed.

Pattern of Model Theory Question Papers was approved by Members of BOS **4.7**

Discussion on Practical Exam Model paper.

- It is decided that the practical examinations held for B.Sc first years (Semester I & II) from the academic year 2020-21 onwards will have the pattern of 25 marks scheme and the credits will remain the same i.e. 1 credit. The duration of the exam will be 3 hours.
- Pattern of Model Practical Question Papers for Paper I and Paper II are enclosed. •

Pattern of Model Practical Question Papers was approved by Members of BOS

4.8 Panel of Examiners

The panel of examiners was approved by the members.

- List is enclosed

4.9 Any other matter.

4.10 Vote of Thanks

Meeting concluded with the Vote of Thanks by Ms.FareedaKhatoon.

Chairperson

University Nominee

HEAD
Department of Microbiology
Osmania University,
Hyderabad-500 007.

Members

1.

2.

3.

Principal
HINDI
(AUTONOMOUS)
Arts, Commerce &
Nallakunta, Hyderaba

CBCS STRUCTURE — ACADEMIC YEAR (2021-22)

B.Sc.-BIO CHEMISTRY/ BIOTECHNOLOGY, MICROBIOLOGY, CHEMISTRY

FIRST YEAR SEMESTER – I

Code	Course Title	Course Type	HPW	Credits	Semester End Exam: Duration in Hours	Semester End Exam: Marks	Continuous Internal Evaluation: Exam Duration	Continuous Internal Evaluation: Marks	Total	Practical 3 hours
BS101	Environmental Studies	AECC-1	2	2	1 1/2	35	20 min.	15	50	
BS102	English-I	CC-1A	4	4	3	70	20 min.	30	100	
BS103	Second Language-I	CC-1A	4	4	3	70	20 min.	30	100	
BS104	Bio-Chemistry- I	DSC-1A	4T+2P=6	4+1=5	3	70	25 min	30	100	25
BS105	**General Microbiology-I**	**DSC-1A**	**4T+2P=6**	**4+1=5**	**3**	**70**	**20 min**	**30**	**100**	**25**
BS106	Chemistry-I	DSC-1A	4T+2P=6	4+1=5	2 1/2	70	25 min	30	100	25
			28	25		385		165	625	

FIRST YEAR SEMESTER – II

Code	Course Title	Course Type	HPW	Credits	Semester End Exam: Duration in Hours	Semester End Exam: Marks	Continuous Internal Evaluation: Exam Duration	Continuous Internal Evaluation: Marks	Total	Practical 3 hours
BS201	Basic Computer Skills	AECC-2	2	2	1 1/2	35	20 min.	15	50	
BS202	English-II	CC-1B	4	4	3	70	20 min.	30	100	
BS203	Second Language-II	CC-2B	4	4	3	70	20 min.	30	100	
BS204	Bio-Chemistry - II	DSC-1B	4T+2P=6	4+1=5	3	70	20 min	30	100	25
BS205	**Microbial Diversity**	**DSC-2B**	**4T+2P=6**	**4+1=5**	**3**	**70**	**20 min**	**30**	**100**	**25**
BS206	Chemistry-II	DSC-3B	4T+2P=6	4+1=5	2 1/2	70	25 min	30	100	25
			28	25		385		165	625	

Chairperson

University Nominee
HEAD
Department of Microbiology
Osmania University,
Hyderabad-500 007.

Members
Dr. K. Anuradha
Head of the Department
Department of Microbiology
Bharatiya Vidya Bhavan's Vivekananda College

Principal
PRINCIPAL
HINDI MAHA VIDYALA
(AUTONOMOUS)
Arts, Commerce & Scie
Nallakunta, Hyderabad

HINDI MAHAVIDYALAYA, NALLAKUNTA, HYDERABAD
(AUTONOMOUS)
B.Sc. I Year Semester – I
Microbiology Paper I – Introductory Microbiology

Code: BS105/DSC Instruction
Theory Classes 4 Hrs/Week Credit for Theory 4 Credit for Practical 1

Learning Outcome:Students will learn about the contributions made by prominent scientists in the field of microbiology, microscopy and the different classifications of living organisms.

UNIT NAME	TOPICS	HOURS PER UNIT
1.Introduction	Microbiology: Definition and scope. History of microbiology: Contribution of Louis Pasteur, Robert Koch.Importance and Applications of Microbiology. Principles and applications of Microscopy-Bright field, Dark field, Phase-contrast, Fluorescent and Electron microscopy (SEM and TEM). Principles and types of stains-Simple stain, Differential stain, Negative stain. Structural stain: spore, capsule, flagella. Bacterial Motility: Hanging Drop Method	15 hours
2.Structure of Bacteria,Viruses & Pure Culture Concepts.	Morphology and lambda Isolation of Pure culture techniques- Enrichment culturing, Dilution plating, streak plate, spread plate, Micromanipulator. Preservation of Microbial cultures – Sub culturing, overlaying cultures with minerals oils, lyophilization, sand cultures, storage at low temperature	15 hours

PRINCIPAL
Nallakunta, Hyderabad-44

B.Sc.-BIO CHEMISTRY/ BIOTECHNOLOGY

2020-2021 BATCH

CHEMISTRY

ACADEMIC YEAR 2020-2021

FIRST YEAR SEMESTER - I

	Course Title	Course Type	Semester End Exam		Continuous Internal Evaluation		Total	Practical 3 hours
			Duration in Hours	Marks	Exam Duration	Marks		
	Environmental Studies	AEC	2	35	1 hr.	15	50	
	English-I	CC-I	3	70	2 hr.	30	100	
	Second Language-I	CC-II	3	70	2 hr.	30	100	
	Bio-Chemistry- I	DSC-I	3	70	2 hr.	30	100	25
	General Microbiology-I	DSC-II	3	70	2 hr.	30	100	25
	Chemistry-I	DSC-III	2 1/2	70	2 hr.	30	100	25
			25	385		165	625	

FIRST YEAR SEMESTER – II

	Course Title	Course Type	Semester End Exam		Continuous Internal Evaluation		Total	Practical 3 hours
			Duration in Hours	Marks	Exam Duration	Marks		
	Basic Computer Skills	AEC	2	35	1 hr.	15	50	
	English-II	CC-II	3	70	2 hr.	30	100	
	Second Language-II	CC-II	3	70	2 hr.	30	100	
	Bio-Chemistry - II	DSC-I	3	70	2 hr.	30	100	25
	Microbial Diversity	DSC-II	3	70	2 hr.	30	100	25
	Chemistry-II	DSC-III	2 1/2	70	2 hr.	30	100	25
			25	385		165	625	

on

University Nominee
HEAD
Department of Microbiology
Osmania University,
Hyderabad-500 007.

Members

Principal

PRINCIPAL
KINDI MAHA VIDYALAYA
(AUTONOMOUS)
Arts, Commerce & Science
Nallakunta, Hyderabad-44.

3. Microbial Nutrition and Metabolism	Microbial Nutrition – Nutritional Requirement, Uptake of nutrients by cell. Nutritional group of microorganism – Autotrophs , Heterotrophs , Mixotrophs. Components and Types of Bacterial Growth Media- Simple and Complex Media. Respiration – Glycolysis , HMP Pathway , ED Pathway , TCA Cycle and Anaplerotic reaction, Electron Transport , Oxidative and substrate level phosphorylation
4. Sterilisation Techniques and Microbial Growth	Sterilization and disinfection techniques-Physical methods-Autoclave, Hot air oven, Laminar air flow, Filter sterilization. Radiation methods-U.V rays, Gamma rays, Ultrasonic methods. Chemical methods-use of Alcohols, Aldehydes, Phenol, Halogens and Hypochlorides Microbial Growth- Different phases of Growth in Batch Culture.Factors Influencing Microbial Growth.Synchronous,Continuous,Biphasic Growth.Methods for Measuring Microbial Growth-Direct Microscopic,Viable Count,Turbidometry,Biomass.

REFERENCE BOOKS

1. Michael J. Pelczar, Jr. E.C.S.Chan, Noel R. Krieg Microbiology Tata McGraw- Hill Publisher.
2. Prescott, M.J., Harly, J.P. and Klein Microbiology 5th Edition, WCB McGrawHill, New York.
3. Madigan, M.T., Martinkl, J.M and Parker,j. Broch Biology of Microorganism, 9th Edition, MacMillan Press, England.
4. Dube, R.C. and Maheshwari, D.K. General Microbiology S Chand, New Delhi.

Chairperson University Nominee Members

Principal
PRINCIPAL
HINDI MAHA VIDYALAYA
(AUTONOMOUS)
Arts, Commerce & Science

HEAD
Department of Microbiology
Osmania University
Hyderabad-500 007

HINDI MAHAVIDYALAYA, NALLAKUNTA, HYDERABAD
(AUTONOMOUS)

B.Sc. I Year Semester – I
Microbiology Paper I

Practical Classes 3 Hrs/Week Credit for Practical 1

CORE-I: Practicals: Introductory Microbiology

- Handling and Calibration of Light Microscope.
- Simple and differential staining (Gram staining), Spore staining.
- Microscopic observation of bacteria -cyanobacteria (Nostoc, Spirulina),algae and fungi (Saccharomyces, Rhizopus, Aspergillus, Penicillium, Fusarium)
- Isolation of T2 bacteriophage from sewage sample
- Preparation of media for culturing Autotrophic and Heterotrophic Microorganism-Algal medium,Mineral salts medium,Nutrient agar medium,Mac Conkey Agar and Blood Agar medium • Sterilization Techniques - Autoclave,Hot Air oven and filtration.
- Enumeration of Bacterial Number by Serial Dilution and Plating(Viable Count) • Isolation of Pure Cultures by Streak,Spread and pour plate Techniques.
- Preservation of Microbial Culture-Slant,Slab,Sand Cultures,mineral oil overlaying and Glycerol stocks
- Turbidometric measurement of bacterial growth and plotting growth curve.

Reference Books:

1. Experiments in Microbiology by K.R. Aneja.
2. GopalReddy.M., Reddy. M.N., SaiGopal, DVR and Mallaiah K.V. Laboratory Experiments in Microbiology.
3. Dubey, R.C. and Maheshwari, D.K. Practical Microbiology, S. Chand and Co New Delhi.
4. Alcamo, I.E. Laboratory Fundamentals of Microbiology. Jones and Bartlett Publishers, USA.

Chairperson | University Nominee | Members | Principal

HEAD
Department of Microbiology
Osmania University

HINDI MAHAVIDYALAYA
(AUS)
Arts & Science
Nallakunta, Hyd-44.

HINDI MAHAVIDYALAYA, NALLAKUNTA, HYDERABAD
(AUTONOMOUS)
B.Sc Microbiology- I[st] Year
Semesters – I - Paper – I
Theory Model Question Paper

Time: 3 hrs Max. Marks: 70

SECTION A

I Write short notes on any Six of the following: 6X2=12

1. A question from Unit I
2. A question from Unit I
3. A question from Unit II
4. A question from Unit II
5. A question from Unit III
6. A question from Unit III
7. A question from Unit IV
8. A question from Unit IV

SECTION B

II Answer all the Questions. 4 X 13= 52

9 (a) A question from Unit I
(OR)
(b) A question from Unit I

10 (a) A question from Unit II
(OR)
(b) A question from Unit II .

11 (a) A question from Unit III.
(OR)
(b) A question from Unit III.

12 (a)A question from Unit IV
(OR)
(b) A question from Unit IV.

Chairperson University Nominee Members

HEAD
Department of Microbiology
Osmania University,
Hyderabad-500 007.

HINDI MAHAVIDYALAYA, NALLAKUNTA, HYDERABAD
(AUTONOMOUS)
B.Sc Microbiology- I[st] Year
Semester – I - Paper – I
Practical Model Question Paper

Time: 3 hrs

Max. Marks: 25

I.	Minor experiment	(5 Marks)
II.	Major experiment	(10 Marks)
III.	Spotting	(5 Marks)
	1) 2) 3) 4) 5)	
IV.	Viva & Record	(5 Marks)

Chairperson

University Nominee

HEAD
Department of Microbiology
Osmania University,
Hyderabad-500 007.

Members

Principal

HINDI MAHA VIDYALAY
(AUTONOMOUS)
Arts, Commerce & Scien
Nallakunta, Hyderabad-4

HINDI MAHAVIDYALAYA, NALLAKUNTA, HYDERABAD
(AUTONOMOUS)
B.Sc. Microbiology- I[st] Year

AECC-1

Environmental Studies

THEORY MODEL PAPER

Credits – 2

MAX MARKS: 35

TIME: 1 $^{1}/_{2}$ HOURS

SECTION-A

3x5=15marks

Answer the following in short:

1. Unit I
2. Unit I
3. Unit II
4. Unit II

SECTION-B

2x10=20marks

Answer the following essays:

5. (a) Unit-I OR

   (b) Unit-I

6 (a) Unit – II OR

   (b) Unit - II

Chairperson

University Nominee

HEAD
Department of Microbiology
Osmania University,
Hyderabad-500 007.

Members

1.

2.

3.

Principal

HINDI MAHAVIDYALAYA, NALLAKUNTA, HYDERABAD
(AUTONOMOUS)
B.Sc. I Year Semester – II

Microbiology Paper II -Microbial Diversity

Code: BS205 DSC Instruction
Theory Classes 4 Hrs/Week Practical Classes 3 Hrs/Week Credit for Theory 4 Credit for Practical 1

Learning Outcome: Students will gain knowledge on Microbial Nutrition, Respiration and different analytical techniques which will be beneficial in developing practical skills.

Title - MICROBIAL DIVERSITY

Unit Name	TOPICS	HOURS PER UNIT
1.CONCEPT OF BIODIVERSITY	Basic Concept of Biodiversity and conservation,Elements of biodiversity-Ecosystem Diversity,Genetic Diversity,Species Abundance and Diversity,Economic value of Biodiversity and legal, ethical and conservation issues related to microbial biodiversity. Classification of Living organisms Haeckel, Whittaker and Carl Woese systems, differentiation of prokaryotes and Eukaryotes. Classification of bactena as per the second edition of Bergey's manual of systematic bacteriology.	15 hours
2.PROKARYOTIC MICROBIAL DIVERSITY	General characteristics of eubacteria,Archaebacteria and Mycoplasma. Microbial richness:Exploration ,significance, conservation and applications.Structural and physiological diversity of Archaea (Methanogens, Halophiles,Thermoacidophiles). Gram Negatives Cyanobacteria and Proteobacteria. Gram positive and heterogenous members including [illegible]	15 hours
3. EUKARYOTIC MICROBIAL DIVERSITY	Eukaryotic microbial diversity-Structural, physiological and metabolic characteristics of Algae-cyanophyta, Chlorophyta,bacilleriophyta,Phaeophyta,Rodophyta.	15 hours

HEAD

PRINCIPAL
HINDI MAHA VIDYALA
(AUTONOMOUS)

	Fungi-Phycomycetis,Basidomycets,Zygomyetes,Oomycetes,Ascomycetes ,Deuteromycetes(imperfect and perfect stages) and protozoa- Giardia, Entamoeba and Plasmodium.
4.MICROBIAL ECOSYSTEMS	Microbial interactions: Symbiosis, Neutralism,Commensalism,Competition,Antagonism,Synergism,Parasitism. Understanding microbial diversity with Cultivated vs Uncultivated microorganisms. The Great Plate count anomaly,Cultivation independent methods to assess microbial diversity,Preserved and perturbed microbial ecosystems,microbiome for sustainable agroSystems,Human microbiome

REFERENCE BOOKS

1. Michael J. Pelczar, Jr. E.C.S.Chan, Noel R. Krieg Microbiology Tata McGraw- Hill Publisher.
2.David,B.D.Delbecco.R,Eisen,H.N and Ginsburg.H.S (1990) "Microbiology" 5th edition,Harper and row,NewYork
3.Stainer,R.Y.Ingram J.I. Wheelis M.L and Painter.P.R.(1986)."General Microbiology"Mac Milan Education Ltd.London
4.Brown J.W (2015) Principles Of Microbial Diversity,ASM press

Chairperson

University Nominee

HEAD
Department of Microbiology
Osmania University,
Hyderabad-500 007.

Members

Principal
HIND
(AUTO
Arts, Com
Nallakunta,

HINDI MAHAVIDYALAYA, NALLAKUNTA, HYDERABAD

(AUTONOMOUS)

B.Sc. I Year Semester – II

Microbiology Paper II

Practical Classes 3 Hrs/Week Credit for Practical 1

PRACTICALS: Microbial Physiology and Biochemistry

1. Isolation of Methanogenic bacteria fromManure by Anaerobic culturing.
2. Isolation of enumerationof Halophiles from Saline environment. completed
3. Isolation of bacteria from diversified habitat to demonstrate antagonism, commensalism and synergism. 4. Isolation of cyanobacteria and fungi from different habitats.
5. Indentification of fungi from different staining techniques.
6. Microscopic observation of soil algae and Protozoa.
7. Winogradskys column to demonstrate microbial diversity.
8. Visit observe any nearby unique ecosystem to understand the role of microorganisms. 9. Demonstration of Great Plate count Anomaly

REFERENCE BOOKS

1. Gupta S. (1995) Practical Microbiology. Jaypee brothers Medical Publishers Pvt Ltd. 2. Experiments in M... mushroom production technology 3rd E...
3 ... ...oratory
F...
4 ... ...d Co New Delhi.
5 ...
P... ...Burnett

Chairperson   University Nominee   Members   Principal

PRINCIPAL
HINDI MAHAVIDYALAYA
(AUTONOMOUS)
Arts, Commerce & Science

HINDI MAHAVIDYALAYA, NALLAKUNTA, HYDERABAD
(AUTONOMOUS)
B.Sc Microbiology- I[st] Year
Semesters – II - Paper – II
Theory Model Question Paper

Max. Marks: 70

Time: 3 hrs

SECTION A

I Write short notes on any Six of the following: 6X3 =18Marks

9. A question from Unit I
10. A question from Unit I
11. A question from Unit II
12. A question from Unit II
13. A question from Unit III
14. A question from Unit III
15. A question from Unit IV
16. A question from Unit IV

SECTION B

4 X 13= 52 Marks

II Answer all the Questions.

9 (a) A question from Unit I
(OR)
(b) A question from Unit I

10 (a) A question from Unit II
(OR)
(b) A question from Unit II .

11 (a) A question from Unit III.
(OR)
(b) A question from Unit III.

12 (a)A question from Unit IV
(OR)
(b) A question from Unit IV.

Chairperson University Nominee Members Principal

HEAD
Department of Microbiology
Osmania University,
Hyderabad-500 007.

HINDI MAHAVIDYALAYA, NALLAKUNTA, HYDERABAD
(AUTONOMOUS)
B.Sc Microbiology- I[st] Year
Semester – II - Paper – II
Practical Model Question Paper

Time: 3 hrs

Max. Marks: 25

V. Minor experiment (5 Marks)
VI. Major experiment (10 Marks)
VII. Spotting (5 Marks)
1) 2) 3) 4) 5)
VIII. Viva & Record (5 Marks)

Chairperson

University Nominee
HEAD
Department of Microbiology
Osmania University,
Hyderabad-500 007.

Members

PRINCIPAL
Principal
HINDI MAHA VIDYAL
(AUTONOMOUS)
Arts, Commerce & Sci
Nallakunta, Hyderaba

HINDI MAHAVIDYALAYA, NALLAKUNTA, HYDERABAD
(AUTONOMOUS)
B.Sc. Microbiology- I[st] Year

AECC-2 **Basic Computer Skills** Credits – 2

THEORY MODEL PAPER

TIME: 1 1/2 HOURS MAX MARKS: 35

SECTION-A

Answer the following in short: 3x5=15marks

1. Unit I
2. Unit I
3. Unit II
4. Unit II

SECTION-B

Answer the following essays: 2x10=20marks

5(a) Unit-I OR

(b) Unit-I

6. (a) Unit – II OR

(b) Unit - II

Chairperson University Nominee Members Principal

HEAD
Department of Microbiology
Osmania University,
Hyderabad-500 007.

1.

2.

3.

HINDI MAHAVIDYALAYA
(AUTONOMOUS)
Arts, Commerce & Science
Nallakunta, Hyderabad

Dr. B. Sandeeptha – 9848056930 – chairperson
OU Nominee
Subject
Industry expert, Alumniac member

HINDI MAHAVIDYALAYA, NALLAKUNTA, HYDERABAD
(AUTONOMOUS)
B.Sc Microbiology- I^st Year
PANEL OF EXAMINERS

S.No.	Name and Designation	Mobile No.
1	Dr. S.Sreedevi, Department of Microbiology St.Pious Degree and Pg College Hyderabad	9246180882 9490042826
2	Ms J. Sridevi Department of Microbiology Govt. Degree College for Women, Begumpet, Hyderabad	9848873122
3	Ms A. Chandyutha Department of Microbiology, KEVRR Women's College, [illegible] Hyderabad.	9705335025
4	Dr. Madhuri Department of Microbiology, HussainiAlam Government Degree College, Hyderabad	9581206814
5	Ms. Ramakulyani Department of Microbiology HRD Degree College, Narayanaguda, Hyderabad	9059528429
6	Dr. [illegible] Department of [illegible] BharatiyaVidyaBhavans Vivekananda College of Science, Humanities, [illegible]	9849977396
7	Dr. [illegible] Department of Microbiology, BharatiyaVidyaBhavans Vivekananda College of Science, Humanities, Commerce, Sainikpuri, Hyderabad	9963730496

PRINCIPAL