Outer Cover Page

College Logo

University Logo

Name of the College…….

Name of University……..

SIDDHA MARUTHUVA ARIGNAR
BACHELOR OF SIDDHA MEDICINE AND SURGERY
FIRST PROFESSIONAL B.S.M.S

NUNNUYIRIYAL (MICROBIOLOGY)

SIDUG - NU

PRACTICAL RECORD BOOK

Name of the Student : ----------

Institutional Roll No. : ----------

Academic Year : ----------

DEPARTMENT OF NOI NAADAL NOI MUDHAL NAADAL(PATHOLOGY)

Inner First Right Page

UNIVERS ITY LOGO

COLLEGE LOGO

NCISM LOGO

COLLEGE NAME……

APPROVED BY
NATIONAL COMMISSION FOR INDIAN SYSTEM OF MEDICINE, NEW DELHI

AFFILIATED TO
UNIVERSITY NAME…….

SIDDHA MARUTHUVA ARIGNAR
BACHELOR OF SIDDHA MEDICINE AND SURGERY
FIRST PROFESSIONAL B.S.M.S

NUNNUYIRIYAL
(MICROBIOLOGY)
SIDUG - NU

PRACTICAL RECORD BOOK

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Unique AYUSH ID No : ----------

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DEPARTMENT OF NOI NAADAL NOI MUDHAL NAADAL(PATHOLOGY)

2nd Right Page-Certificate

UNIVERSITY LOGO

COLLEGE LOGO

NCISM LOGO

COLLEGE NAME……

APPROVED BY
NATIONAL COMMISSION FOR INDIAN SYSTEM OF MEDICINE, NEW DELHI

AFFILIATED TO
UNIVERSITY NAME…….

CERTIFICATE

This is to certify that, Mr./Mrs./Miss…… (Name of student) bearing Roll No…… and University Register / Enrollment No…… has satisfactorily completed all the Practical of ***NUNNUYIRIYAL (MICROBIOLOGY) SIDUG – NU*** *prescribed by the National Commission for Indian System of Medicine as a part of First Professional B.S.M.S Course.*

HEAD OF THE DEPARTMENT

Submitted for the Practical Examination Conducted by …… (University Name), held on……(date) at ……(College name).

EXAMINERS

Date: ----------

Internal: ----------

Place: ----------

External: ----------

3rd Right Page-Index

INDEX

Sr. No.	Date	Name of Practical	Term	Page No.	Signature of Faculty
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					

INSTRUCTIONS & GUIDELINES

General

1. The common format for the practical prescribed by the NCISM is aiming to maintain uniformity among colleges/institutions across the country.

Instructions to Students

2. The student will prepare the practical record book, including the cover page, first inner page, certificate page, and index page as per the format prescribed by the NCISM here.

3. The student will record in the practical record book hand written immediately after each practical and get the signature of the concerned teaching faculty.

4. The student will use the specific format/template for recording each practical in the practical record book.

Instructions to Teachers/HOD

5. It is the responsibility of the department to conduct practicals as per the list, schedule, method, etc., specified in the curriculum.

6. The teacher must instruct the student to record his/her work as per the specific format prescribed by the NCISM here. **(List of practical and format references are enclosed herewith)**

7. After each practical, the concerned teacher must verify the completion of the record work and put the signature in the index page.

8. The certificate page of the practical record will be certified and signed by the concerned head of the department only.

9. Normal values or any other important information confined to the subject, if any, may be printed in the last pages.

Guidelines specific to the subject:

1. Use appropriate colours:
   - Eosin & Hematoxylin for Gram staining
   - Eosin and Blue colour pencil for AFB staining
   - Green and purple for Alberts staining
2. Use blue or black ball point or gel pen for description.
3. Unstained preparations may be drawn using HB lead pencil.
4. Every diagram should be with a caption and proper labelling.
5. Draw the diagrams on the left-hand side and description on the right-hand side.
6. Proportion of structures should be appropriate in microscopy field.

List of Practical and Format Reference

S.No	Name of the Practical	Format reference
P1	**Safety guidelines**	IV
P2	**General Microbiological techniques**	
P 2.1	Aseptic procedures	IV
P 2.2	Making Cotton wool plugs	IV
P 2.3	Cleaning Glass wares	IV
P 2.4	Discarding methods	IV
P3	**Instruments & Equipment handling**	
P 3.1	Autoclave	V
P 3.2	Hot Air Oven	V
P 3.3	Incubator	V
P4	**Microscopy Principle and handling of Student microscope**	
P 4.1	Light Microscope - compound	V
P5	Hanging drop technique	IV
P6	**Smear preparation & Staining methods -**	
P 6.1	Simple stain	I
P 7.1	Negative staining(Indian Ink stain)	I
P 7.2	Special stain (Alberts stain)	I

P8	**Gram's staining**	
P8.1	GPC in clusters, chains and pairs	I
P8.2	GPB & GNB	I
P8.3	Mixed smear	I
P9	AFB staining	I
P10	Culture Media Preparation	IV
P11	Culture methods	IV
P12	Anaerobic culture (Anaerobic Jar & RCMB)	V
P13	**Antimicrobial sensitivity test methods**	
P13.1	Diffusion Method	IV
P13.2	Dilution Method	IV
P14	**Microbiological sample collection, transport and storage methods.**	
P14.1	Sample collection	IV
P14.2	Sample transport	IV
P14.3	Sample storage	IV
P15	**Sampling and Processing (Throat Swab, high nasal swab)**	
P15.1	Throat Swab	IV
P15.2	High nasal Swab	IV
P16	**Bacterial Identification with case report**	

P16.1	Staphylococcus aureus	III
P16.2	Corynebacterium diphtheriae	III
P16.3	Salmonella typhi	III
P17.1	Escherichia coli	III
P17.2	Klebsiella pneumoniae	III
P17.3	Pseudomonas aeruginosa	III
P18	**Serology**	
P18.1	WIDAL	II
P18.2	RPR	II
P18.3	Card test HBsAg / HIV	II
P19	**Immunology**	
P19.1	ELISA	II
P19.2	Latex agglutination - ASO Test / RF Test	II
P20	**Mycology**	
P20.1	KOH mounting	IV
P20.2	LPCB mounting	IV
P21	Mycology – Slide culture	IV
P22	**Virology – virus models.**	
P22.1	Rabies	VI

P22.2	HIV	VI
P22.3	Orthomyxo virus	VI
P22.4	Paramyxo virus	VI
P22.5	Adeno virus	VI
Spotters		VII

Format - I (P- 6, 7, 8, 9)

Staining Technique

Right side of record note

Expt. no	**Heading**	**Page no**
Date		

Aim:

Principle:

Reagents:

Procedure: -

Crucial step:

Observation:

Inference:

Example:

Clinical Interpretation:

Clinical application:

Left side of record note

Diagram of microscope field

Format - II (P-18, 19)

Immunological Experiment

Right side of record note

Expt. no	Heading	Page no
Date		

Aim:

Principle:

Reagents:

Procedure: -

Qualitative:

Sample:

Pre-treatment:

Antigen(s):

Incubation & Observation:

Quantitative:

Dilution:

Incubation:

Observation:

Inference:

Interpretation:

Significant titre value:

Crucial step:

Clinical Interpretation:

Clinical application:

Left side of record note:
Diagram of dilutions and the Pattern of reaction.

Format – III (P- 16, 17)

Identification of Organism

Right side of record note

Expt. no	**Heading**	**Page no**
Date		

Case report:

Clinical sample:

Direct Microscopy:

Wet preparation:

Staining:

Culture:

Biochemical reactions:

Special tests:

Interpretation and Clinical correlation:

Left side of record note:

Diagram of microscopic field, Culture media, Biochemical reactions and special tests.

Format – IV (P-1, 2, 5, 10, 11, 13, 14, 15, 20, 21)

Preparation Procedure

Right side of record note

Expt. no	**Heading**	**Page no**
Date		

To prepare:

Materials required:

Step wise procedure:

Application:

Significance:

Left side of record note:

Relevant diagram

Format – V (P - 3, 4, 12)

Demonstration

Right side of record note

Expt. no	**Heading**	**Page no**
Date		

Description of the structure and function:

Left side of record note:

Diagram of the equipment

Format – VI (P-22)

Identification of Virus

Right side of record note

Expt. no	Heading	Page no
Date		

Case report:

Identification of Virus:

Name of the virus:

Nucleic acid: DNA/RNA – SS/DS

Size:

Shape:

Symmetry:

Enveloped / Naked:

Tissue tropism:

Diseases caused:

Tissue culture cell lines:

Important diagnostic procedure:

Availability of vaccine:

Left side of record note:

EM structure of the Virus

Life cycle with Vector transmitting the virus where applicable.

Format – VII

Spotters

Right side of record note

Expt. no	**Heading**	**Page no**
Date		

Brief description with identification.

Left side of record note:

Related appropriate diagram

ANNEXURE

Units of length used in microbiology

- Micrometre (μm): One-millionth of a metre (1 μm = 0.000001 m)
- Millimetre (mm): One-thousandth of a metre (1 mm = 0.001 m)
- Centimetre (cm): One-hundredth of a metre (1 cm = 0.01 m)

Microorganisms range in size from **nanometres to micrometres**. Most microorganisms are too small to see without a microscope.

Size ranges of microorganisms

- **Viruses**: 30–200 nanometers (nm) in diameter
- **Nanobacteria**: 100–200 nm in diameter
- **Marine bacteria**: 100 nm or larger in diameter
- **Typical rod-shaped bacteria**: 0.5–1.0 micrometers (μm) wide and 1–4 μm long
- **Typical spherical bacteria**: 0.5–1.0 μm in diameter
- **Filamentous fungi**: 8–15 μm wide and 4–8 μm long