



First Year P.B.B.Sc. Nursing

Subject: Microbiology

Faculty: Department of Microbiology, Dr D. Y. Patil Medical College.

Mr. Sandeep Kale (Internal Faculty)

Unit	Topic	No of lectures	Lecture Serial No
I INTRODUCTION :	General Microbiology : History	2	1-2
	Microscope (Types – dissecting to Electron measuring scale upto nanometer)	1	3
II GENERAL MICROBIOLOGY	Morphology and Physiology (Size, Shape, struct., spore, flagella, capsule)	2	4-5
	Staining (demonstration) Gram's + Z N's + Motility	1	6
III BACTERIAL GROWTH REQUIREMENT	Growth requirement of Bacteria + Bacteria growth curve	3	7-9
	Cultural media different	1	10
	Collection processing of sample and bacteria	1	11
IV STERILIZATION & DISINFECTION	Sterilization + Disinfections	1	12
	Sterilization demo of instruments, Different disinfectants dilute	1	13
	Hospital infection control Biosafety + Fumigation and role of nurse	2	14-15
	Bacterial genetics (emphasis to drug resistance) Host parasite relationship	1	16
V SYSTEMIC BACTERIOLOGY	Pyogenic cocci causing diseases Staphylococci	1	17
	Streptococci and Pneumococci and Neisseria	1	18
	Salmonella + Shigella	1	19
	E coli diarrhea + Cholera + Pseudomonas	1	20
	C. diptheria + Chlamydia	1	21
	Anaerobes intro. + C. welchii	1	22

	C. tetani + nonsporing anaerobes mention diseases	1	23
	Tuberculosis, Leprosy + Aty	1	24
	Spirocheate + Leptospira, Chlamydia	1	25
	Demo different morphology of bacteria G + C, G + B, GNC, GNB Demo of organism Spore, Capsule, fungi, AFB	1	26
VI SYSTEMIC MYCOLOGY	Fungi intro., Dermatophytes	1	27
	Mycetophytes	1	28
	Mycetoma, Rhino, Crypto	2	29-30
	Candida and Lab. Diagnosis of fungal infections	1	31
VII IMMUNOLOGY	Immunity	1	32
	Antigen	1	33
	Antibody	1	34
	Ag X Ab reaction sererogical	1	35
	Immune Response, Hypersensitivity	1	36
VIII SYSTEMATIC PARASITOLOGY	Intro classification and some terms	1	37
	Amoeba + Giardia	1	38
	Trichomonas + Leishmania	1	39
	Malaria + Toxoplasma	2	40-41
	Cestodes (Taenia sodium and saginata E. granuloses)	1	42
	Intestinal Nematodes	1	43
	Tissue Nematodes	1	44
	Vectors	1	45
	Diff. Parasites and vectors stool preparation demo	1	46
IX SYSTEMATIC VIROLOGY	Gen. Prop. Cultivation classification	1	47
	Herpes virus	1	48
	Picorna virus	1	49
	Measles, Mumps, Chicken pox	1	50
	Ortho and Arbo (Dengue)	1	51
	Rhabdo virus	1	52
	Hepatitis virus	1	53

	HIV and AIDS	1	54
X CLINICAL MICROBIOLOGY	PUO, UTI, STD, Wound infection	3	55-57
	Micro – organism transmitted through food	1	58
	Food poisoning, food born infection	2	59-60

PRACTICUM:

Each student will practice in laboratory as indicated in each unit of the courses outline. While giving nursing care in the wards they will practice collection and processing of specimens, prevention and control of hospital infections. Sterilization, immunization, chemotherapy and maintenance of personal and environmental hygiene. Observation visit to incinerator, posting in CSSD and infection control department.

• Bibliography:

1. Alice Corrairie Smith, "Microbiology and pathology" 9th ed., Mosby Co.
2. Bernard D. Davis, Rentap Dalbecco Herman N. Eisen & Harold S. Ginsberg, "Microbiology", 3rd Ed, A Harper International edition.
3. Hug L. L Moffet, (1981) "Clinical microbiology", 2nd ed., J. B. Lippincott Co.
4. Macbie and Mecartney, (1980), "Medical microbiology" 13th ed., printed.
5. P. Ananthanarayan and C. K. Jayarm Panikar, "Textbook of microbiology", 8th ed., Orient Longman Company Ltd.
6. Chakravarti Text book of Microbiology.
7. T. Panjratan Text Book of Microbiology in nursing, New central Bool agency Culcutta 2002.

Evaluation Scheme

INTERNAL ASSESSMENT 25 marks

Periodical	:	25
Midterm	:	50
Pre-final	:	75

Total : 150

15 marks (Send to University)

Assignment - 10 marks

External Assessment

University examination 75 marks