

# Bachelor of Vocation (Operation theatre technology)

## B.Voc. (OTT)

II Semester				
S.No.	Course Code	Subject	Type of Course	Credits
1	BVOTT-201	Human Anatomy & Physiology -2	Skill	4
2	BVOTT-202	OT Equipment Management	Skill	2
3	BVOTT-203	Elementary Nursing	Skill	4
4	BVOTT-204	Clinical Pathology	Skill	4
5	BVOTT-205	<b>Communication Skills - I</b>	Gen	3
6	BVOTT-206	<b>Computing Skill - I</b>	Gen	3
7	BVOTTP-2	Vocational Practical	Skill	13

### **BVOTT -201 HUMAN ANATOMY AND PHYSIOLOGY-2**

#### **UNIT-1**

Glands of human body – mucous glands, thyroid gland, parathyroid gland, hypothalamus, pituitary, adrenal, pineal, the ovaries, the testes glands, general consideration of lymphatic system, gross anatomy of thoracic duct, histology of lymph node, spleen, tonsils and thymus, gross anatomy of respiratory system, parts of respiratory system, histology of trachea and lungs, parts of reproductive system- Male and female.

#### **UNIT-2**

Brief introduction and definition of integumentary system and Gastro- intestinal system, layers of skin, appendages of skin-hair, sebaceous gland, sweat gland, nails, receptors, function of skin, parts of GIT, oral cavity, salivary glands, structure and function of esophagus, stomach, small and large intestine, liver, gall bladder and pancreas, Histology of tongue, esophagus, stomach, small and large intestine, liver, gall bladder and pancreas.

#### **UNIT-3**

Lymphatic system and immunity- Lymphoid tissue formation, composition and functions of lymph, phagocytosis, cytokine therapy, AIDS, autoimmune disease, medical uses of hemopoietic growth factors, organs of lymphatic system, functions of respiratory system, mechanism of respiration, lungs volume and capacities- definition, normal value, their measurement and clinical importance, pulmonary ventilation, diffusion of gasses, pulmonary circulation- oxygen and carbon dioxide transport in blood, disease related to respiratory system.

#### **UNIT-4**

Gastrointestinal system- characteristics of G.I, functions of G.I, hormones, saliva, composition, function, control of secretion, gastric juice- composition, mechanism of secretion, functions, regulation of secretion, mucosal barrier, pancreatic juice- composition, function, regulation, liver and gall bladder- composition, function of bile, control of secretion, functions of gall bladder and gallstone, functions of reproductive system – male and female, functions of urinary system- ureters, urinary bladder, urethra.

### **BVOTT -202 OT EQUIPMENT MANAGEMENT**

#### **UNIT-1**

- Pulse oximeter
- Nebulizer
- Glucometer
- ECG machine

## **UNIT-2**

- Cardiac monitor
- Defibrillator
- Total patient bed side monitor
- SWD
- Oxygen concentrator

## **BVOTT -203 ELEMENTARY NURSING**

### ***UNIT-1***

Bed making: Materials used for hospital beds and bedding, Bed making, Special types of beds, Positions in bed, Moving and lifting of patients, Additional appliances used for beds.

### ***UNIT-2***

Caring of sick: Daily toilet of the patient, bathing in the bed and the bathroom, care of hair and the mouth tray, bed sores and tropic ulcers and their prevention, giving of bedpans and urinals, spittoons, feeding of the bed-ridden cases.

### ***UNIT-3***

Aspiration and continuous drainage of stomach and duodenum, Artificial feeding, Administration of oxygen, Inhalations, Preparation of patient for examination, Dressings and instruments commonly used in the wards, Prepare nursing trays and trolleys.

## **BVOTT -204 CLINICAL PATHOLOGY**

### **UNIT-1**

Histopathology : Introduction to Histo-Pathology, receiving of Specimen in the laboratory, Grossing Techniques, mounting Techniques - various Mountants, maintenance of records and filing of the slides, use & care of Microscope, various fixatives, Mode of action, Preparation and Indication, Section Cutting, tissue processing for routine paraffin sections, decalcification of tissues, staining of tissues H& E Staining.

### **UNIT-2**

Clinical Pathology : Introduction to Clinical Pathology, Collection, Transport, Preservation, and Processing of various clinical specimens, Urine Examination - Collection and Preservation of urine, Physical, chemical, Microscopic Examination of body fluids cerebrospinal fluid (CSF), Sputum Examination, feces.

### **UNIT-3**

Hematology : Introduction to Hematology, Normal constituents of Blood, their structure and function, Collection of Blood samples, Various Anticoagulants used in Hematology, various instruments and glassware used in Hematology, Preparation and use of glassware, laboratory safety guidelines.

## **BVOTT 205 CLINICAL MICROBIOLOGY**

## **UNIT-1**

☑sterilization & decontamination- I

Dry Heat

Moist Heat

Sterilization - II

Chemical methods

Gaseous methods

Filtration

- Wound Infection & Urinary Tract Infections
- Blood stream Infections
- Respiratory tract Infection
- S.Typhi, Salmonella Paratyphi 'A', Salmonella Typhimurium
- Catheter, IV associated Infections
- Hospital acquired infections & prevention of hospital acquired infections
- Hepatitis C.

## **UNIT-2**

Characteristics: characteristics of bacteria, virus and fungus, Sources of infection, mode of spread, Destruction of bacteria, Control of infection, Inflammation, healing and repair, Infection, wounds, ulcers, blisters, boils, fractures, burns, scalds, gangrene and hemorrhage.

## **UNIT-3**

Characteristics: Characteristics of normal urine, variations in diseases, collection of samples and routine tests, Characteristics of normal feces, variation in diseases, collection of samples and routine tests, Sputum and vomit - Characteristics in different diseases, collection of samples.

## **BVOTT-206-BASIC OF HEALTH MARKET AND ECONOMY**

### **UNIT I**

Health Care Market An Introduction : Main Problems in the Market for Health Care, Health Care and

Economic Basics, Analyzing Health Care Markets. Demand-Side Considerations: Demand for Health

and Health Care, Market for Health Insurance

### **UNIT II**

Supply-Side Considerations: Managed Care, Health Care Professionals, Hospital Services,

Confounding Factors Public Policy in Medical Care: Policies to Enhance Access, Policies to Contain Costs, Medical Care Systems Worldwide,

### **UNIT-III**

Health Sector in India: An Overview Health Outcomes; Health Systems; Health Financing

Evaluation of Health Programs Costing, Cost Effectiveness and Cost-Benefit Analysis; Burden of Diseases ,Role of WHO , Health Care Budget: purpose, types & practices in Indian context.

## **UNIT-IV**

Health Economics: Fundamentals of Economics: Scope & coverage of Health Economics, demand for

Health Sciences; Health as an investment, population, Health & Economic Development.

Tools of Economics-Concepts of need, demand, supply & price in Health Services.

Methods & Techniques of Economic Evaluation of Health Programmes: Cost benefit & cost effective methods-output & input analysis.

Market, monopoly, perfect & imperfect competition. Health Financing from various sources – Public,

Private, TPA.

Economics of Health Programmes for Nutrition, diet & population control, economics of abuse of tobacco & alcohol, environmental influences on health and feeding.

Economics of Communicable (STDs & Malaria) & non-communicable (IHD & Cancers) diseases.

### **PRACTICALS:**

#### **BVOTTP -201 Practical Human Anatomy & Physiology-II**

Human Anatomy-II (Practical)

Demonstration of:

- Nervous system from models.
- Structure of eye and ear
- Structural differences between skeletal, smooth and cardiac muscles.
- Various bones
- Various joints
- Various parts of male & female reproductive system from models

Human Physiology- II (Practical)

- To perform total platelet count.
- To perform bleeding time.
- To perform clotting time.
- To study about CSF examination.
- To study about intrauterine contraceptive devices.
- To demonstrate microscopic structure of bones with permanent slides.
- To demonstrate microscopic structure of muscles with permanent slides.

#### **BVOTTP -202 PRACTICAL OT EQUIPMENT MANAGEMENT**

**USE OF:**

- Pulse oximeter
- Nebulizer
- Glucometer
- ECG machine, Cardiac monitor, Defibrillator

### **BVOTTP -203 PRACTICAL ELEMENTARY NURSING**

- Bed making
- how to do Administration of oxygen,
- Inhalations
- Preparation of patient for examination,
- Dressings and instruments commonly used in the wards,
- Prepare nursing trays and trolleys.

### **BVOTTP -204 PRACTICAL CLINICAL PATHOLOGY**

- use & care of Microscope,
- staining of tissues H& E Staining.
- Collection,
- Transport,
- Preservation,
- Processing of various clinical specimens

### **BVOTTP 205 PRACTICAL CLINICAL MICROBIOLOGY**

- sterilization & decontamination-
- Chemical methods
- Gaseous methods
- Filtration