



All India Paramedical Faculty

DIPLOMA IN CATH-LAB-TECHNICIAN --132

SYLLABUS

Preliminary Course

ANATOMY:

Sl.No. Particulars

- 01 Basic cells and tissues
- 02 Heart: Pericardium, chambers, valves, conduction systems great vessels
- 03 Circulation : major arteries and veins
- 04 Lungs and pleura, diaphragm
- 05 Liver, Spleen, Kidney, Brain

PHYSIOLOGY:

- 01 Circulatory systems
- 02 Autonomic nervous system
- 03 Action potential, muscles contraction
- 04 Gas exchange
- 05 Thrombosis, platelet function
- 06 Renin angiotensin system
- 07 Kidney : Physiology

PHARMACOLOGY:

- 01 General Pharmacology
- 02 Sedatives
- 03 Anaesthetics agents
- 04 Analgesics
- 05 Drugs used for heart disease: Antianginal, Antiarrhythmic, anti failure, vassopressors, vasodilators, cardiac imaging agents, anti thrombotics

PREVENTIVE CARDIOLOGY:

- 01 Diet and Nutrition
- 02 Smoking
- 03 Exercise and heart

MICROBIOLOGY:

- 01 Specimen collection : Blood, urine, sputum, etc.
- 02 Bacteria and viruses in CVS
- 03 Serology and immunology

SYLLABUS Final year Course

RADIOLOGY:

Sl.No. Particulars

- 01 Principles of X-Rays
- 02 Protection from radiation

03 Description and recognition of Chest X-Rays
 04 Different views of chest for identification of cardiopulmonary structures

05 Ultrasonography : Principles

06 Basic of Echocardiography

ECG:

01 ECG machine : Parts

02 Technical of taking an ECG

03 Pitfalls in taking ECGs

04 Recognition of normal ECG waves

05 Abnormal ECG

DEFIBRILLATION:

01 Technique

02 Indication

03 Complications

DISEASES OF HEART:

01 Congenital

02 Rheumatic

03 Myocardial and pericardial

04 Coronary artery diseases

05 Hypertension

06 Pulmonary thromboembolism and pulmonary hypertension

07 Respiratory failure

CATHETERS AND INSTRUMENTS:

01 Arterial Blood Gases : Technique and interpretation

02 Haemodynamic monitoring: Technique, recognition, indication, complications.

03 Fluid and electrolytes

04 X-ray imaging in cath lab

05 Intra Aortic Ballon Pulsation: Indication, Technique and complications

06 Artifician ventilation

07 Extra Corporeal Membrane Oxygenator

08 Different views of cardiac catheterization

09 Transducer, outline of C-arm, cineangio machine and oxymetry

10 Interventional catheters, balloon and stents.

First year- Paper

paper	subject	marks		Duration
Paper-I	ANATOMY & PHYSIOLOGY	75	100	3hrs
	Internal Assessment	25		
Paper-II	PHARMACOLOGY, PREVENTIVE CARDIOLOGY, MICROBIOLOGY	75	100	3hrs
	Internal Assessment	25		
practical		100		3hrs
Second year- Paper				

Paper-I	RADIOLOGY, ECG, DEFIBRILLATION	75	100	3hrs
	Internal Assessment	25		
Paper-II	DISEASES OF HEART, CATHETERS AND INSTRUMENTS			3hrs
	Internal Assessment			
Practical			100	3hrs

