

**Curriculum
for
Practical :- First Year
Diploma in Cardiology Technician**

Practical	Topics
	1. Orientation for Cardiac technician towards importance & need of the technician.
	2. Care of Unconscious patient.
	3. Monitoring Temperature (manual).
	4. Monitoring Pulse (manual).
	5. Monitoring Respiration (manual).
	6. Monitoring BP (manual).
	7. Monitoring Temperature (with Multiparamonitor).
	8. Monitoring Pulse (with Multiparamonitor).
	9. Monitoring Respiration (with Multiparamonitor).
	10. Monitoring BP (with Multiparamonitor).
	11. Invasive monitoring.
	12. ECG procedure (as technician).
	13. Echo- Cardiography procedure (as assistant).
	14. Basic life support (BLS).

Details of Curriculum for Second Year Diploma in Cardiology Technician

PAPER 1st Theory	Topics	Hours.
1.Only relevant surgical & medical conditions (relevant to cardiac tech but other than cardiology).	1. History taking. General examination of the patient. Filling Case-sheet. Common clinical words.	15 Hrs
	2. Hypertension:- Def, Causes, Pathology, Clinical lectures, Investigation & Management.	05 Hrs
	3. Hypotension :- Def, Causes, Pathology, Clinical lectures, Investigation & Management.	02 Hrs
	4. Diabetes mellitus :- Def, Causes, Pathology, Clinical lectures, Investigation & Management.	10 Hrs
	5. <u>Diseases of blood</u> :- Anaemia, Basics of coagulation Bleeding disorders & Haemophilia.	30 Hrs
	6. <u>Respiratory Tract</u> :- Pneumonia, Tuberculosis, B.asthma, COPD, Bronchiectasis, Collapse of lung, Pneumonitis, Pleural effusion, Pneumothorax, Empyema thoracis, Cancer lung.	50 Hrs
	7. <u>Diseases of GIT & Liver & GB</u> :-Reflux Oesophagitis, Peptic ulcers, Gastritis, Instestinal Obstruction, Hepatitis, Cirrhosis of liver, Cholecystitis.	40 Hrs
	8. <u>Diseases of Nervous system</u> :- Stroke, Meningo-encephalitis, Glasgow coma scale, Epilepsy, Head Injury.	30 Hrs
	9. <u>Diseases of Urinary tract</u> :- Urolithiasis, Benign prostatic hyperplasia.	13 Hrs
	10. <u>Endocrine system</u> :- Diabetes mellitus, hypo & Hyper thyroidism.	10 Hrs
	11. <u>Miscellaneous</u> :- Hypo & Hyper Natraemia, Hypo & Hyper Kalaemia, Hypo & Hyper Calcaemia.	10Hrs
	12. <u>Infections diseases</u> :- TB, Typhoid, Malaria, Dengue fever, Leprosy, AIDS, Amoebiasis.	30 Hrs

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PAPER 1st Theory	Topics	Hours.
2.Nursing Procedures like vital recording, IM/IV/SC injection, Oxygen therapy, Nebulization, IV infusion.	1. Temperature monitoring & Fever.	02 Hrs
	2. Pulse monitoring.	02 Hrs
	3. BP monitoring.	02 Hrs
	4. Respiration monitoring.	01 Hrs
	5. Types of Injection routes.	01 Hrs
	6. IM Injection.	01 Hrs
	7. IV Injection.	01 Hrs
	8. SC Injection.	01 Hrs
	9. Oxygen Therapy.	03 Hrs
	10. Nebulization	03 Hrs
	11. IV Infusion (Also with infusion pump).	01 Hrs
	12. Care of Unconscious patient.	02 Hrs

PAPER 1st Theory	Topics	Hours.
3. Advanced cardiac life support (ACLS).	1. Advanced cardiac life support (ACLS).	20 Hrs

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PAPER 2nd Theory	Topics	Hours.
1.Diseases related to Cardio- vascular system (CVS).	1. Auscultation & Heart Sounds.	05 Hrs
	2. Hypertensive vascular disease and hypertensive emergencies.	05 Hrs
	3. Cardiogenic shock.	05 Hrs
	4. Congestive Heart failure.	05 Hrs
	5. Cardiac arrest.	10 Hrs
	6. Ischemic heart disease.	20 Hrs
	7. Valvular heart diseases.	20 Hrs
	8. Rheumatic heart diseases.	20 Hrs
	9. Congenital heart diseases.	20 Hrs
	10. Cardiac arrhythmia.	10 Hrs
	11. Infective endocarditis.	05 Hrs
	12. Pericarditis & pericardial effusion.	05 Hrs
	13. Myocarditis & cardiomyopathies.	05 Hrs
	14. Epidemiology of heart diseases.	05 Hrs
	15. Preventive cardiology.	05 Hrs

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PAPER 2nd Theory	Topics	Hours.
2.Drugs used in Cardiology & BLS, ACLS.	1. Use of Adrenaline/ Nor-adrenaline.	10 Hrs
	2. Use of Dopamine/ Dobutamine.	10 Hrs
	3. Use of Atropine.	10 Hrs
	4. Use of Anti arrhythmic drugs.	10 Hrs
	5. Use of Anti hypertensives.	10 Hrs
	6. Use of DC shock.	05 Hrs
	7. Use of Defibrillator.	05 Hrs

PAPER 2nd Theory	Topics	Hours.
3.Details about BLS, ACLS, Cardiac- Catheterization, Coronary angiography and angioplasty.	1. Basic life support (BLS). 2. Advanced cardiac life support (ACLS). 3. <u>Cardiac Catheterization, Angiography & Plasty:-</u> Equipments & instruments used, Dyes & drugs used, Indications of procedure, Steps of procedure, Pre and post procedure care of the patients, Part Preparation, before procedure & discharge advices.	20 Hrs 30 Hrs 180 Hrs

PAPER 2nd Theory	Topics	Hours.
4.Basic biomedical engineering physics of ECG, ECHO, TMT, Cath.lab, multi para monitors etc	1. About Multiparamonitor.	10 Hrs
	2. About ECG machine.	10 Hrs
	3. About Echo-Cardiography machine.	10 Hrs
	4. About TMT.	10 Hrs
	5. About Infusion pump.	10 Hrs
	6. About Defibrillator.	10 Hrs

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Practical	Topics
	1. IM Injection.
	2. IV Injection.
	3. SC Injection.
	4. Use of Infusion pump.
	5. Nebulisation.
	6. Use of Defibrillator.
	7. Use of TMT machine.
	8. Practical exposure in Cardiac Cath lab(Pre, Intra & Post procedure)
	9. Use of Kits/Cards for Troponin measurements.
10. Advanced cardiac life support(ACLS training).	
8. Use of ionotropic, chronotropic & dromotropic drugs like Dopamine, Dobutamine, Adrenaline, NA, Atropine etc.	