

Curriculum
for
Practical :- First Year
Diploma in C.T. Scan Technician

Practical	Topics
	<u>Observership for :-</u>
	1. Preparation of patient for CT Scan.
	2. Performing all types of CT Scan.
	3. Contrast administration & management of adverse reactions to it.
	4. Protection from radiation hazards.
	5. Assisting CT guided procedures.
	6. Developing film.
	7. Record keeping.

Details of Curriculum for Second Year Diploma in C.T. Scan Technician

PAPER 1st Theory	Topics	Hours.
1 .Details of Only relevant surgical & medical conditions.	1. History taking. General examination of the patient. Filling Case-sheet. Common clinical words.	15 Hrs
	2. Hypertension:- Def, Causes, Pathology, Clinical features, Investigation & Management.	05 Hrs
	3. Hypotension :- Def, Causes, Pathology, Clinical features, Investigation & Management.	05 Hrs
	4. Diabetes mellitus :- Def, Causes, Pathology, Clinical features, Investigation & Management.	10 Hrs
	5. <u>Diseases of blood</u> :- Anaemia, Basics of coagulation Bleeding disorders & Haemophilia.	20 Hrs
	6. <u>Respiratory Tract</u> :- Pneumonia, Tuberculosis, B. asthma, COPD, Bronchiectasis, Collapse of lung, Pneumonitis, Pleural effusion, Pneumothorax, Empyema thoracis, Cancer lung.	40 Hrs
	7. <u>Diseases of GIT & Liver & GB</u> :-Reflux Oesophagitis, Peptic ulcers, Gastritis, Intestinal Obstruction, Hepatitis, Cirrhosis of liver, Cholecystitis, Common mass in abdomen.	50 Hrs
	8. <u>Diseases of Nervous system</u> :- Stroke, Meningo-encephalitis, Glasgow coma scale, Epilepsy etc.	25 Hrs
	9. Basic idea about fractures & their general management.	25 Hrs
	10. Head injury :- SCALP injury, skull fracture, intracranial bleeds, concussion, contusion etc.	20 Hrs
	11. Out line of thoracic injury.	10 Hrs
	12. Out line of abdominal injury.	10 Hrs
	13. PIVD & other spinal diseases.	10 Hrs
	14. Spina bifida, Meningocele, meningo-myelocele.	10 Hrs
	15. Hydrocephalus:- Def,Causes, Types, S/S, Management.	20 Hrs
	16. Brain tumors, tuberculoma & Neurocysticercosis.	20 Hrs

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1.Details of Only relevant surgical & medical conditions.	17. <u>Diseases of Urinary tract:-</u> Urolithiasis, Benign prostatic hyperplasia.	15 Hrs
	18. <u>Endocrine system :-</u> Diabetes mellitus, hypo & Hyper thyroidism.	10 Hrs
	19. <u>Miscellaneous:-</u> Hypo & Hyper Natraemia, Hypo & Hyper Kalaemia, Hypo & Hyper Calcaemia.	05 Hrs
	20. <u>Infections diseases :-</u> TB, Typhoid, Malaria, Dengue fever, Leprosy, AIDS, Amoebiasis.	10

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.	01Hrs
	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

Details of Curriculum for Second Year Diploma in C.T. Scan Technician

PAPER 2nd Theory	Topics	Hours.
1.CT physics, slice Anatomy & CT positioning.	1. Physics Basic Principles of C.T Scan, Discovery of C.T Scan, Scanner Geometry:-1 st Generation, IInd Generation, III Generation, IVth Generation, Collimators, Artifacts, C.T Number, Attenuation values, Image Reconstruction Algorithm. System Components of Helical or spiral C.T. Scan, Gray Scale, MIP, MPR, VRT, Angiography. MDCT Cardiac C.T /64/128 Slice C.T Pitch / 3DCT Reconstruction / SSD/ PET CT	90 Hrs
	2. CT slices—Axial, coronal and sagittal sections of Brain and Spine.	20 Hrs
	3. CT slices—Axial,coronal and sagittal sections of Orbit.	05 Hrs
	4. CT slices—Axial,coronal and sagittal sections of PNS	05 Hrs
	5. CT slices—Axial,coronal and sagittal sections of Neck.	10 Hrs
	6. CT slices—Axial, coronal and sagittal sections of Thorax.	10 Hrs
	7. CT slices—Axial, coronal and sagittal sections of Abdomen.	10 Hrs
	8. CT slices—Axial, coronal and sagittal sections of Pelvis.	10 Hrs
	9. CT slices—Axial, coronal and sagittal sections of Limbs.	10 Hrs
	10. CT slices—Axial, coronal and sagittal sections of Hepatobiliary System.	10 Hrs
	11. CT slices—Axial, coronal and sagittal sections of KUB	10 Hrs
	12. Various positions used in doing CT Scan.	10 Hrs

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PAPER 2nd Theory	Topics	Hours.
2. CT guided procedures.	CT PROCEDURES	
	1. C.T. Myelogram /cisternogram.	10 Hrs
	2. CT Guided FNAC / biopsy.	20 Hrs
	3. Other Special C.T. Procedures & common interventions.	30 Hrs
	4. C.T Enteroclysis/ CT IVP/ dual phase CT.	20 Hrs
	5. CT Angiography, mainly brain.	20 Hrs

PAPER 2nd Theory	Topics	Hours.
3. Bio-medical physics of CT Scan machine & developement of CT film etc.	1. Basic Bio-medical physics of CT Scan machine.	80 Hrs
	2. Types of film, cassette, screen, Developer, fixer etc.	30 Hrs

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	<u>Hands on training of :-</u>
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