

RADIODIAGNOSIS (CODE: RD)

Number	COMPETENCY The students should be able to	CLINICIAN	LEADER	COMMUNICATOR	LIFE LONG LEARNER	PROFESSIONAL	CRITICAL THINKER	RESEARCHER
RD1.1	Define radiation and the interaction of radiation and importance of radiation protection	3	2	2	1	2	2	2
RD1.2	Describe the evolution of Radiodiagnosis. Identify various radiological equipments In the current era	2	3	3	2	1	1	2
RD1.3	Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorder of ENT	3	2	2	1	3	3	2
RD1.4	Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorder in Ob & Gy	2	3	3	3	3	3	2
RD1.5	Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorder in internal medicine	2	2	1	3	3	2	1
RD1.6	Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorders in surgery	3	2	3	3	2	1	2
RD1.7	Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorder in Pediatrics	3	2	2	3	2	2	2

Number	COMPETENCY The student should be able to	CLINICIAN	LEADER	COMMUNICATOR	LIFE LONG LEARNER	PROFESSIONAL	CRITICAL THINKER	RESEARCHER
RD1.8	Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to common malignancies	3	2	2	3	2	2	3
RD1.9	Describe the role of Interventional Radiology in common clinical conditions	3	2	2	1	1	2	3
RD1.10	Describe the role of Emergency Radiology, miscellaneous & applied aspects, interaction with clinical departments	3	3	2	2	2	1	3
RD1.11	Describe preparation of patient for common imaging procedures	2	2	2	3	2	1	1
RD1.12	Describe the effects of radiation in pregnancy and the methods of prevention/ minimization of radiation exposure	2	3	2	2	2	1	1
RD1.13	Describe the components of the PC & PNDT Act and its medicolegal implications	2	2	2	2	2	1	1
23AN13.4	Identify the bones and joints of upper limb seen in anteroposterior and lateral view radiographs of shoulder region, arm, elbow, forearm and hand	3	2	2	2	2	1	2

Number	COMPETENCY The students should be able to	CLINICIAN	LEADER	COMMUNICATOR	LIFE LONG LEARNER	PROFESSIONAL	CRITICAL THINKER	RESEARCHER
AN20.6	Identify the bones and joints of lower limb seen in anteroposterior and lateral view radiographs of various regions of lower limb	2	2	1	3	2	2	2
AN25.7	Identify structures seen on a plain x-ray chest (PA view)	2	2	1	2	2	2	2
AN25.8	Identify and describe in brief a barium swallow	2	2	1	2	2	2	2
AN43.7	Identify the anatomical structures in 1) Plain x ray skull, 2) AP view and lateral view 3) Plain x ray cervical spine - AP and lateral view 4) Plain x ray of paranasal sinuses	2	2	1	2	3	2	2
AN43.8	Describe the anatomical route used for carotid angiogram and vertebral angiogram	3	2	1	2	3	2	2
AN43.9	Identify anatomical structures in carotid angiogram and vertebral angiogram	3	2	1	2	3	2	2
AN51.1	Describe & identify the cross-section at the level of T8, T10 and L1 (transpyloric plane)	3	2	1	2	2	2	2
AN51.2	Describe & identify the midsagittal section of male and female pelvis	3	2	1	2	2	2	2
AN54.1	Describe & identify features of plain X ray abdomen	3	2	1	2	2	2	2
AN54.2	Describe & identify the special radiographs of abdominopelvic region (contrast X ray Barium swallow, Barium meal, Barium enema, Cholecystography, Intravenous pyelography & Hysterosalpingography)	3	2	1	3	3	2	2

Number	COMPETENCY The students should be able to	CLINICIAN	LEADER	COMMUNICATOR	LIFE LONG LEARNER	PROFESSIONAL	CRITICAL THINKER	RESEARCHER
AN54.3	Describe role of ERCP, CT abdomen, MRI, Arteriography in radiodiagnosis of abdomen	3	2	1	2	3	2	2
FM1.9	Describe the importance of documentation in medical practice in regard to medicolegal examinations, Medical Certificates and medicolegal reports especially: -- maintenance of patient case records, discharge summary, prescribed registers to be maintained in Health Centres. -- maintenance of medico-legal register like accident register. -- documents of issuance of wound certificate -- documents of issuance of drunkenness certificate. -- documents of issuance of sickness and fitness certificate. -- documents for issuance of death certificate. -- documents of Medical Certification of Cause of Death - Form Number 4 and 4A -- documents for estimation of age by physical, dental and radiological examination and issuance of certificate	3	2	2	2	2	2	2
IM1.19	Enumerate the indications for and describe the findings of heart failure with the following conditions including: 2D echocardiography, brain natriuretic peptide, exercise testing, nuclear medicine testing and coronary angiogram	3	2	1	2	2	2	2
IM3.7	Order and interpret diagnostic tests based on the clinical presentation including: CBC, Chest X ray PA view, Mantoux, sputum gram stain, sputum culture and sensitivity, pleural fluid examination and culture, HIV testing and ABG	3	2	2	2	3	2	2
IM3.11	Describe and enumerate the indications for further testing including HRCT, Viral cultures, PCR and specialised testing	3	2	1	2	3	2	2

Number	COMPETENCY The students should be able to	CLINICAL	LEADER	COMMUNICATOR	LIFE LONG LEARNER	PROFESSIONAL	CRITICAL THINKER	RESEARCHER
IM5.13	Enumerate the indications for ultrasound and other imaging studies including MRCP and ERCP and describe the findings in liver disease	3	2	1	2	1	2	2
IM6.12	Enumerate the indications and describe the findings for CT of the chest and brain and MRI	3	2	1	2	1	3	2
IM7.18	Enumerate the indications and interpret plain radiographs of joints	3	2	1	2	2	3	2
IM10.19	Enumerate the indications and describe the findings in renal ultrasound	3	2	1	2	2	2	2
IM13.12	Describe the indications and interpret the results of Chest X Ray, mammogram, skin and tissue biopsies and tumor markers used in common cancers	3	2	1	2	1	2	2
IM18.9	Choose and interpret the appropriate diagnostic and imaging test that will delineate the anatomy and underlying cause of the lesion	3	2	1	2	2	2	2
IM19.7	Choose and interpret diagnostic and imaging tests in the diagnosis of movement disorders	3	2	1	2	1	2	2
OG9.4	Discuss the clinical features, laboratory investigations ultrasonography, differential diagnosis, principles of management and follow up of gestational trophoblastic neoplasms	3	2	1	2	2	3	2
PE21.12	Interpret report of Plain radiograph of KUB	3	2	1	2	1	3	2

Number	COMPETENCY The students should be able to	CLINICIAN	LEADER	COMMUNICATOR	LIFE LONG LEARNER	PROFESSIONAL	CRITICAL THINKER	RESEARCHER
PE21.13	Enumerate the indications for and Interpret the written report of Ultrasonogram of KUB	3	1	1	2	2	2	2
PE23.13	Interpret a chest radiograph and recognize Cardiomegaly	3	2	1	2	2	2	2
PE23.16	Use the ECHO reports in management of cases	3	2	1	1	2	2	2
PE28.17	Interpret X-ray of the paranasal sinuses and mastoid; and /or use written report in case of management Interpret CXR in foreign body aspiration and lower respiratory tract infection, understand the significance of thymic shadow in Pediatric chest X-rays	3	2	1	1	2	2	2
PE30.23	Interpret the reports of EEG, CT, MRI	3	2	2	2	2	2	2
PE34.8	Interpret a Chest radiograph	3	2	2	2	2	2	2
SU25.3	Describe the etiopathogenesis, clinical features, Investigations and principles of treatment of benign and malignant tumours of breast.	3	2	1	1	2	2	2

RADIOTHERAPY (CODE: RT)

Number	Competency	Clin.	Leader	Com.	Lifelong Learner	Professional	Crit. Think.	Researcher
Topic:PrinciplesofRadiationOncology(Radiotherapy)								
RT1.1	Describe and discuss definition of radiation, mechanism of action Of radiation, types of radiation	3	1	2	2	2	2	2
RT1.2	Describe and discuss interaction of radiation with matter & measurement of radiation	3	1	2	2	2	2	2
RT1.3	Enumerate, describe and discuss classification and staging of	3	1	2	2	2	2	2
Topic:RadiationProtection								
RT2.1	Describe and discuss radiation protection and personnel monitoring during radiation treatment	3	1	2	2	2	2	2
Topic:Radiobiology&Chemoradiation								
RT3.1	Describe and discuss cell cycle and cell survival curve, principles of radiobiology	3	1	2	2	2	2	2
RT3.2	Describe and discuss synergism of radiation and chemotherapy	3	1	2	2	2	2	2
Topic:RadiationTreatmentDelivery&outcome								
RT4.1	Describe and discuss teletherapy machine (Co60/LINAC)	3	1	2	2	2	2	2
RT4.2	Enumerate, describe and discuss types of treatment plan, basic workflow of 2D/3DCRT/IMRT/IGRT	3	1	2	2	2	2	2

Number	COMPETENCY The students should be able to	CLINICIAN	LEADER	COMMUNICATOR	LIFE LONG LEARNER	PROFESSIONAL	CRITICAL THINKER	RESEARCHER
RT4.3	Describe and discuss Brachytherapy machine (remote after loading)	3	2	2	2	2	2	2
RT4.4	Describe and discuss different radioactive isotopes and their use in cancer patients	3	1	2	2	2	3	1
RT4.5	Describe and discuss role of radiation in management of common malignancies in India (region specific)	3	2	2	2	2	3	1
RT4.6	Describe and discuss radiotherapy for benign disease	3	2	2	2	2	3	1
RT4.7	Counsel patients regarding acute and late effects of radiation and supportive care	3	1	2	2	2	2	2
RT4.8	Describe oncological emergencies and palliative care	3	2	1	2	2	2	2
RT4.9	Display empathy in the care of patients with cancer	3	1	2	2	2	2	2
RT5.1	Describe and discuss cancer prevention, screening, vaccination, cancer registry	3	1	2	2	2	2	2

Number	COMPETENCY The students should be able to	CLINICIAN	LEADER	COMMUNICATOR	LIFE LONG LEARNER	PROFESSIONAL	CRITICAL THINKER	RESEARCHER
OR10.1	Describe and discuss the aetiopathogenesis, Clinical features, Investigations and principles of management of benign and malignant bone tumours and pathological fractures	3	2	2	2	2	2	2