

POST GRADUATE EXAMINATION, JUNE - 2021

MD RADIODIAGNOSIS

(PAPER ONE)

BASIC SCIENCES RELATED TO RADIODIAGNOSIS

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

- Q. 1.** Discuss in detail radiation protection and patient doses in diagnosis imaging. Write a short note on dose reduction in CT. **(20)**
- Q. 2.** Describe the construction of the transducer used in ultrasonography and discuss briefly about various transducers used in ultrasound imaging. **(20)**
- Q. 3. Describe briefly:** **(3 x 10 = 30)**
- a. Heel effect and its role in mammography
 - b. Factors affecting quality of a radiograph
 - c. Magnetic resonance spectroscopy principle
- Q. 4. Write short notes on:** **(5 x 6 = 30)**
- a. Characteristic curve of an X-ray film
 - b. Grid and grid ratios
 - c. Multidetector CT
 - d. Harmonic imaging
 - e. Common MRI artefacts

X

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**MD RADIODIAGNOSIS
(PAPER TWO)**

CLINICAL RADIOLOGY & RELATED PATHOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

Q. 1. Describe the CT features/classification of acute pancreatitis and enumerate its complications. **(20)**

Q. 2. Discuss the imaging findings of hydatid cyst in lung and the important differential diagnosis. **(20)**

Q. 3. Describe briefly: **(3 x 10 = 30)**

- a. Hyperparathyroidism
- b. Ultrasound in 3rd trimester
- c. Color Doppler in gonadal torsion

Q. 4. Write short notes on: **(5 x 6 = 30)**

- a. Tetralogy of fallot
- b. Juvenile angiofibroma
- c. Caroli's disease
- d. FAST protocol
- e. Isotope study in pelvic-ureteric junction obstruction

X

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**MD RADIODIAGNOSIS
(PAPER THREE)**

CLINICAL RADIOLOGY & RELATED PATHOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

- Q. 1.** Discuss the etiology and radiology of vertebral collapse. **(20)**
- Q. 2.** A 26 year old male patient presented in emergency with history of seizures. Discuss the evaluation and role of imaging in management. **(20)**
- Q. 3. Describe briefly:** **(3 x 10 = 30)**
- a. Neurofibromatosis
 - b. Pseudotumor in orbit
 - c. MDCT role in management of oncology patient.
- Q. 4. Write short notes on:** **(5 x 6 = 30)**
- a. Wet lung
 - b. Transhepatic biliary drainage
 - c. Complications and management of angiography
 - d. Child with painful hip
 - e. Mesial temporal sclerosis

X

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**MD RADIODIAGNOSIS
(PAPER FOUR)**

RECENT ADVANCES AND NUCLEAR MEDICINE IN RADIODIAGNOSIS

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

Q. 1. TIPSS (Transjugular intrahepatic portosystemic shunt) – Explain procedure and complications. **(20)**

Q. 2. Describe the techniques and applications of magnetic resonance perfusion imaging of the brain. **(20)**

Q. 3. Describe briefly: **(3 x 10 = 30)**

- a. Digital radiography versus computed radiography
- b. Embolization materials used in interventional radiology
- c. Percutaneous vertebroplasty

Q. 4. Write short notes on: **(5 x 6 = 30)**

- a. Electron beam CT
- b. Foetal interventions
- c. Sleep MRI
- d. Nanotechnology in medicine
- e. Susceptibility weighted imaging.

X