

**POST GRADUATE EXAMINATION, MAY- 2020**

**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.** Describe in brief the physical principle of magnetic resonance imaging and FIVE commonly used pulse sequences. **(20)**

**Q. 2.** Draw a schematic diagram of cerebro-spinal fluid circulation and discuss its clinico-physiological significance. **(20)**

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

- a. Ultrasound contrast media
- b. Barium enteroclysis
- c. AERB regulations for planning an imaging department

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

- a. Anode heel effect
- b. CT dosimetry
- c. Laser imaging camera
- d. Autotransformer
- e. Digital tomosynthesis of breast

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**POST GRADUATE EXAMINATION, MAY- 2020**

**MD RADIODIAGNOSIS**

**(PAPER TWO)**

**CLINICAL RADIOLOGY & RELATED PATHOLOGY**

(Respiratory system, CVS, Genito-urinary system, Abdomen and GIT)

**[Time allotted: Three hours]**

**[Max Marks: 100]**

**Note:** Attempt all questions  
Illustrate with suitable diagrams.

**Q. 1.** Discuss the radiological anatomy of portal venous system. Causes of portal hypertension and enumerate the role of imaging in portal hypertension. **(20)**

**Q. 2.** How will you evaluate a patient suspected of renovascular hypertension and discuss the role of interventional radiography in the management. **(20)**

**Q. 3. Describe briefly:** **(3 x 10 = 30)**  
a. Classify ovarian tumors. Describe the imaging modalities and its advantages and disadvantages  
b. Radioisotopes used in the renal system  
c. Soft markers in antenatal ultrasound

**Q. 4. Write short notes on:** **(5 x 6 = 30)**  
a. PET scan  
b. Pseudo tumor  
c. Reverse Golden 'S' sign  
d. Pentalogy of Fallot's  
e. Pancreas divisum

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**POST GRADUATE EXAMINATION, MAY- 2020**

**MD RADIODIAGNOSIS**

**(PAPER THREE)**

**CLINICAL RADIOLOGY & RELATED PATHOLOGY**

(Musculo-skeletal, Soft tissue, Head and neck, CNS and Endocrine)

**[Time allotted: Three hours]**

**[Max Marks: 100]**

**Note:** Attempt all questions  
Illustrate with suitable diagrams.

**Q. 1.** Discuss role of ultrasound and MRI in management of a patient with pain in shoulder after trauma. **(20)**

**Q. 2.** What are intra-axial and extra-axial tumors? How will you investigate a case of suspected brain tumors? **(20)**

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

- a. Vesico-ureteric reflux
- b. Neurofibromatosis
- c. Reduction of intussusception by hydrostatic method

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

- a. Ultrasonography of neonatal brain
- b. Carotid plaque
- c. X-ray findings of mucopolysaccharidosis
- d. Radio-imaging findings in retinoblastoma
- e. Intradural extramedullary lesions of spine-imaging findings

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**MD RADIODIAGNOSIS**

**(PAPER FOUR)**

**RECENT ADVANCES, NUCLEAR MEDICINE & PAEDIATRIC/INTERVENTIONAL  
RADIOLOGY**

**[Time allotted: Three hours]**

**[Max Marks: 100]**

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**Note:** Attempt all questions  
Illustrate with suitable diagrams.

**Q. 1.** Discuss the current status of vascular interventional techniques. **(20)**

**Q. 2.** Discuss the role of MRI and CT in cardiac imaging with particular reference to recent advances. **(20)**

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

- a. Transarterial chemoembolization (TACE)
- b. Ultrasound in focal breast lesion
- c. Multisystem disease with pancreatic involvement

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

- a. Segmental anatomy of liver and its importance
- b. Image guided radiofrequency ablation
- c. Clinical application of susceptibility weighted imaging
- d. Penile doppler
- e. CT urography

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