

M.D. Examination

Radiodiagnosis : Branch IX

Paper-I

(Radio-Physics & Applied Basic Sciences)

[Max. Marks : 100]

Date : 02-04-2019, Tuesday]

Time : 3 Hours]

- Instructions :
- (1) Figure to the right indicates full marks.
 - (2) Write legibly.
 - (3) Draw diagram wherever necessary

1. Write in detail the construction and working principle of Stationary anode X-Ray tube (20)
 2. Enumerate the various ultrafast sequences. Describe in brief the principles and clinical applications of any four sequences. (20)
 3. Write in detail the Instrumentation of MDCT (20)
 4. Short notes on (5x4 = 20)
 - a. Described the coronary artery anatomy. Discuss CT coronary angiography.
 - b. Described the radiological anatomy of mediastinum.
 - c. What is ALARA. What precaution you can take to reduced radiation dosage in children while performing CT.
 - d. Describe with diagram retroperitoneal spaces.
 5. Short notes on (10x2 = 20)
 - a. Principles and applications of susceptibility weighted imaging.
 - b. Enumerate the CT artifacts. Discuss any three of them.
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Paper II

(Radio-therapy & Medicine/surgery & Pathology in Relation to Radiology)

[Max. Marks : 100]

Date : 04-04-2019, Thursday]

Time : 3 Hours]

- Instructions :
- (1) Figure to the right indicates full marks.
 - (2) Write legibly.
 - (3) Draw diagram wherever necessary

1. Discuss briefly the various CNS manifestations occurring in HIV (20)
 2. Enumerate the causes of osteoporosis. How do you differentiate osteoporotic vertebral fracture from malignancy. (20)
 3. Radiological features in retinoblastoma. (20)
 4. Short notes on (20)
 - a. Embolic agents.
 - b. Variations in biliary tract anatomy
 5. Short notes on (20)
 - a. Discuss BIRADS classification
 - b. CT Imaging approach to renal cysts
 - c. MR fistulography
 - d. Discuss enteroclysis
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Candidate's Seat No : _____

0419E136
M.D. Examination
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Paper III
(Radiodiagnosis)

[Max. Marks : 100]

Date : 08-04-2019, Monday]
Time : 3 Hours]

Instructions : (1) Figure to the right indicates full marks.
(2) Write legibly.
(3) Draw diagram wherever necessary

1. Role of CT and MRI in staging renal malignant tumors. (20)
 2. What are the causes of dwarfism. Discuss the radiological features of any three dysplasias (20)
 3. Discuss briefly the antenatal sonographic features of posterior fossa anomalies (20)
 4. Short notes on (20)
 - a. Application of Doppler in diagnosis of ovarian pathologies.
 - b. HRCT findings in lung in rheumatoid arthritis.
 - c. Amniocentesis.
 - d. Staging of bronchogenic carcinoma
 5. Short notes on (20)
 - a. Toxoplasmosis.
 - b. Bullet vertebra.
 - c. Enumerate the various craniovertebral junction anomalies.
 - d. Calcifications on Mammography.
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Paper IV

(Modern Trends & Recent Advances)

[Max. Marks : 100]

Date : 10-04-2019, Wednesday]

Time : 3 Hours]

Instructions : (1) Figure to the right indicates full marks.
(2) Write legibly.
(3) Draw diagram wherever necessary

1. Principles of PET CT. discuss the various applications in brain pathologies. (20)
 2. Discuss the role of MRI in diagnosis of diseases of the heart. (20)
 3. Principles and applications of dual source CT. (20)
 4. Short notes on (20)
 - a. PACS.
 - b. MRI Elastography in liver diseases.
 5. Short notes on (20)
 - a. Principles of liver iron quantification.
 - b. Applications of Time resolved dynamic MR angiography.
 - c. MR urography
 - d. Arterial spin labeling (ASL) perfusion study
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