

**D.M.R.D. Examination****Paper I****Basic Sciences Related to Radiology****Date : 01-04-2019, Monday]****Time : 3 Hours]****[Max. Marks : 100**

- Instructions :** (1) Answer to the point.  
(2) Figure to the right indicate marks.  
(3) Write legibly.  
(4) Draw diagrams wherever necessary.

Q. 1 Describe the steps you would take in a diagnostic department to control and reduce radiation doses to the patient and the worker. (20)

Q. 2 Write short notes on: (20)  
a) MR artefacts  
b) Circuit diagram of a Digital radiography (DR) unit.  
c) PC-PNDT Act  
d) CT Fluoroscopy

Q.3 Write short notes on: (20)  
a) Tissue elastography & clinical applications  
b) Physics of PET CT

Q.4 Write short notes on: (20)  
a) Describe the construction of a Phased array electronic probe.  
Discuss the evolution of Ultra sound probes to till date.  
b) Digital Breast Tomosynthesis

Q.5 What is Nephrogenic systemic fibrosis (NSF)? Classify MR contrast agents available in market today and briefly discuss the liver specific MR Contrast agents. (20)

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**D.M.R.D. Examination****Paper II****CNS Including Head & Neck, Musculoskeletal, Chest, M., C. V. S.****Date : 03-04-2019, Wednesday]****[Max. Marks : 100****Time : 3 Hours]**

- Instructions :** (1) Answer to the point.  
(2) Figure to the right indicate marks.  
(3) Write legibly.  
(4) Draw diagrams wherever necessary.

- Q. 1 Discuss the role of HRCT in evaluation of Interstitial lung disease. (20)
- Q. 2 Write short notes on: (20)  
a) CT Cisternography  
b) TAPVC  
c) Pulmonary aspergillosis  
d) Tracheo Oesophageal fistula
- Q.3 Describe the MR anatomy of shoulder. Discuss the MR imaging findings in rotator cuff injury. (20)
- Q.4 Write short notes on: (20)  
a) Fibrous dysplasia  
b) Dynamic contrast enhanced MRI evaluation of breast lesion
- Q. 5 Describe with a neat diagram the radiographic anatomy of neck spaces. Discuss various pathology in these spaces, their spread with implications. (20)
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**D.M.R.D. Examination****Paper III****Abdominal Imaging Incl. Inter. Radio. Obste. & Gynaecology****Date : 05-04-2019, Friday]****[Max. Marks : 100****Time : 3 Hours]**

- Instructions :** (1) Answer to the point.  
(2) Figure to the right indicate marks.  
(3) Write legibly.  
(4) Draw diagrams wherever necessary.

- Q. 1 Discuss various USG markers of congenital anomalies in a 18week foetus (20)
- Q. 2 Write short notes on: (20)  
a) MR Enterography  
b) IUGR  
c) Bronchial artery embolisation  
d) Colour doppler evaluation of post transplant kidney.
- Q.3 Write short notes on: (20)  
a) USG evaluation in Portal hypertension  
b) Embolic agents
- Q.4 Write short notes on: (20)  
a) Radiology of Gastro Intestinal bleed  
b) Imaging and therapeutic intervention of intestinal Intussusception
- Q. 5 Discuss the European Society of Human Reproduction and Embryology (ESHRE) and the European Society for Gynaecological Endoscopy (ESGE) consensus of congenital uterine anomaly classification and role of Imaging in diagnosis of female genital tract congenital anomalies. (20)
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