

**RADIO DIAGNOSIS**

**PAPER- I**

**RDG/D/11/40/I**

**Time : 3 hours**  
**Max. Marks : 100**

**Attempt all questions in order.**  
**Each question carries 10 marks.**

1. Discuss the etiopathogenesis, imaging features and differential diagnosis of silicosis. 3+4+3
2. Enumerate various germ cell tumours of mediastinum. Discuss their imaging features. 3+7
3. Enumerate the causes of Acute Respiratory Distress Syndrome. Give in detail the imaging findings. 3+7
4. Classify aortic dissection. Describe the role of C.T. Angiography in diagnosis and management of aortic dissection. 2+5+3
5. Briefly describe the penile arterial flow physiology. Discuss the technique and utility of duplex sonography in evaluation of erectile dysfunction. 3+4+3
6. Discuss grading of renal trauma. Describe the role of imaging in its evaluation. 4+6
7. Define abnormal endometrial thickening. Enumerate its causes and discuss their imaging features. 2+2+6
8. Enumerate various cardiomyopathies. Describe their imaging features. 3+7
9. Describe venous drainage of testis. Discuss imaging features and interventions in varicocele. 3+4+3
10. List various causes of female infertility. Discuss the role of H.S.G. and MRI in their evaluation. 2+4+4

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PAPER- II

RDG/D/11/40/II

Time : 3 hours  
Max. Marks : 100

Attempt all questions in order.  
Each question carries 10 marks.

1. Enumerate causes of subarachnoid hemorrhage. Discuss the role of CT in its evaluation. 2+8
2. Describe in brief anatomy of sella turcica. Enumerate various sellar and parasellar masses. Discuss imaging features of craniopharyngioma. 3+2+5
3. Enumerate causes of demyelinating diseases of spinal cord. Discuss their imaging features and differential diagnosis. 2+5+3
4. Name various motility disorders of oesophagus. Discuss pathophysiology and imaging features of cardiac achalasia. 2+3+5
5. Enumerate causes of multiple nodular filling defects in small bowel. Discuss the imaging features of small bowel lymphoma. 3+7
6. Enumerate different varieties of osteosarcoma. Discuss their imaging features. 3+7
7. Enumerate various pancreatic masses of childhood. Discuss imaging features and differential diagnosis of pancreatoblastoma. 2+5+3
8. Describe etiopathogenesis of osteomyelitis. Discuss role of imaging in diagnosis of acute osteomyelitis. 4+6
9. Discuss current indications of MRI in breast cancer evaluation. Discuss MR imaging features of breast cancer. 5+5
10. List various causes of bleeding in first trimester. Discuss their sonographic features. 2+8

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**PAPER- III**

**RDG/D/11/40/III**

**Time : 3 hours**

**Max. Marks : 100**

**Attempt all questions in order.**

**Each question carries 10 marks.**

1. Define Doppler effect. Briefly describe Colour Doppler and Power Doppler modes of imaging. Enumerate advantages of each mode. 1+4+5
2. Describe major component of a PACS system and their functions in brief. 10
3. Enumerate various Colour Doppler parameters used in Intra-uterine Growth Retardation (IUGR). Briefly discuss their role in IUGR. Mention significance of aortic isthmus index. 2+6+2
4. Enumerate causes of acute chest pain in an elderly patient. Briefly describe CT finding in three common likely conditions. 1+3+3+3
5. Briefly describe diffusion protocol for MRI Breast and characterization of benign and malignant breast lesion. 2+4+4
6. Enumerate indications of scintigraphic evaluation in GI bleed. Briefly discuss technique, radio-isotopes used and interpretation of results. 2+4+2+2
7. Enumerate causes of mesenteric ischemia. Briefly discuss plain radiographic, ultrasound, CT findings and role of intervention in this condition. 2+2+2+2+2
8. Enumerate various vascular complications in renal transplant. Briefly discuss role of colour Doppler, CT, MRI and intervention in these conditions. 1+3+2+2+2
9. Mention various interventional techniques used in hepatocellular carcinoma (HCC). Briefly discuss indications and technique of two commonly employed techniques. Outline protocol for follow up in a case of HCC. 1+8+1
10. Describe principle of Dual energy CT, different techniques of dual energy acquisition and various applications. 3+2+5

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**PAPER- IV**

**RDG/D/11/40/IV**

**Time : 3 hours**

**Max. Marks : 100**

**Attempt all questions in order.  
Each question carries 10 marks.**

1. Briefly describe MRI and MRS findings in prostatic carcinoma and its staging. Discuss role of TRUS biopsy. 4+4+2
2. Discuss the principle, components, advantages and limitations of digital radiography. 1+4+3+2
3. Define pulmonary sequestration. Describe its types, and discuss CT findings and role of angiography in it. 2+1+4+3
4. Discuss clinical presentation, imaging findings on ultrasound, CT and MRI in Vein of Galen malformation. Briefly discuss its interventional management. 2+2+2+2+2
5. Discuss clinical associations of hypertrophic osteoarthropathy. Briefly describe its radiological findings, differential diagnosis and role of Nuclear Medicine. 3+4+2+1
6. What is Pancreas Divisum? Briefly discuss its embryologic basis, and clinical significance. What are ERCP, MRCP and MDCT findings? 2+3+5
7. Define film contrast. Enumerate various factors affecting film contrast. Briefly discuss methods to improve it. 2+4+4
8. Describe in brief different components and their function of a rotating x-ray tube. Draw its neat diagram and label its components. 5+5
9. Describe various mammographic techniques in brief, types of mammographic equipments available and current recommendations for its use for routine screening. 4+3+3
10. Describe measurement technique and normal values of nuchal translucency. Briefly discuss its role in Trisomy 21 and other chromosomal anomalies. 4+2+2+2

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***POSSESSION/USE OF CELL PHONES OR ANY SUCH ELECTRONIC GADGETS IS NOT PERMITTED  
INSIDE THE EXAMINATION HALL***