

## Paper I- IV Division

Paper I : Basic Science  
(Anatomy etc)

Paper II : CVS, Respi,  
Breast, GIT

Paper III : CNS & H & N,  
GUT, MSK, Obs-gyne, ENT  
Eye, IR.

Paper IV: Recent  
advances and Nuclear  
medicine

## Previous year Questions 2015-19

### (MD Radiodiagnosis, SJH)

#### PAPER 2

#### Respi and CVS

1. Chest CT in pulmonary TB (2019, 10 M)
2. How will you investigate radiologically a 60 year old diabetic male with acute chest pain and breathlessness (20, 2018)
3. Enumerate causes of respiratory distress in newborn.  
*Anuj Aggarwal*  
Discuss radiological approach in an infant presenting with respiratory and describe imaging features of any 4 of them. (20 M, 2016)
4. X ray findings in pediatric chest infections.
5. Radiological workup of a mass detected on CXR in 65 yr old moker male. Staging of Bronchogenic Ca (20 m, 2019)
6. Enumerate causes of hemoptysis. Radiological evaluation of patient presenting with SPN (20 M)
7. Radiological evaluation of 45 yr patient with massive hemoptysis. Suggest possible intervention to control it. (20M)

8. Radiological anatomy of mediastinum. Role of imaging in diagnosis of Ca lung (20 M)
9. Imaging features in pulmonary aspergillosis (15, 2018) (10 M, 2016)
10. Pulmonary manifestations in HIV
11. ARDS (10M)
12. Sequestration of lung
13. Pulmonary hypertension
14. Technical advancements for coronary artery imaging and describe imaging features (20 M)
15. Cardiomyopathies
16. Scintigraphy in cardiac imaging (10, 2018)
17. 4 clinical conditions that produce Left to right shunt and discuss the radiological manifestations. Discuss imaging features of possible hemodynamic complications if the condition is untreated. (15M, 2016)
18. Role of MDCT in diagnosis and Mx of aortic dissection (2019)
19. Child presenting with mediastinal widening (20 M, 2015)
20. Pleural tumours (Long Question 2015)
21. Cyanotic CHD (2019, Sent up)
22. Radiological features of progressive systemic sclerosis (20M)

## **Breast**

1. BIRADS (10M)
2. BIRADS. Discuss radiological evaluation of a suspected case of Ca Breast (20 M)
3. Discuss mammography equipments, technique and radiological interpretation of various breast lesions (20 M)

4. DCIS (10, 2018)
5. Tomosynthesis : Principle, application in breast masses with merits-demerits w.r.t other modalities (20.Mock 2018)
6. Digital breast tomosynthesis (2019)

## **GIT**

1. Etiology and imaging features in evaluation of 40 yr female with dysphagia (20 M)
2. Technique of single contrast barium swallow study. What is the clinical indication where BaS is relevant today despite availability of endoscopy (20 M , 2019)
3. Segmental anatomy of liver and its surgico-radiological importance (15, 2018)
4. Radiological anatomy , vascular supply and role of radiology in diagnosis of HCC (20 M)
5. HCC Short note (10M)
6. Portal HTN (10M)
7. Describe both diagnostic and therapeutic role of radiology in a 70 yr old man presenting with lower GI bleed (20, 2018)
8. Radiological workup of a solitary nodule in a cirrhotic liver on ultrasound (15, 2018)
9. Radiological approach to focal lesions in cirrhotic liver and role of CT and MRI in DD of these lesions (15 M, 2016)
10. Radio-pathological correlation in cirrhosis.
11. Imaging evaluation of hepatic tumours and role of IR in their Mx (20 M)
12. IR in treatment of hepatic tumours (20,Mock exam, SJH 2018)
- 13.

14. Radiological evaluation of 40 yr old male patient presenting with obstructive jaundice.  
Give DD. (20 M)
15. IR in obstructive jaundice (10 M, 2016)
16. Indication, C/I and procedure of Trans-jugular intrahepatic shunt (2019)
17. LIRADS (2015)
18. Etiopathogenesis of biliary atresia. Discuss role of USG, MR and scintigraphy in biliary atresia (20 M)
19. Hemangioma liver (10M)
20. Xanthogranulomatous cholecystitis (2019)
21. NET (10, 2018)
22. Endoscopic ultrasound in gastric carcinoma (10, 2018)
23. Enteroclysis (10 M)
24. Enteroclysis and normal bowel appearance (10 M)
25. Techniques and role of MR enteroclysis in bowel pathologies (20, Mock SJH)
26. Double contrast UGI study (10 M)
27. Double contrast enema
28. 60 yr male with chronic pancreatitis history came with weight loss. Imaging features for pancreatic Ca in such patient? Crucial points to be included in report for resectability (20 M, 2019)
29. Ga 68 labelled somatostatin receptor PET CT in pancreatic NET (2019, 10 M)
30. Role of CT in acute pancreatitis (10 M)
31. CT and Ba Meal findings in Annular pancreas and pancreatic divisum (10 M, 2016)
32. Cystic masses in pancreas (2019, sent up)
33. RIF pain in 20 yr female, enumerate causes and role of radiology (20 M)

34. Radiology of appendix
35. Gastric Volvulus
36. CT in acute abdomen (10 M)

### **PAPER 3**

#### **CNS and spine**

1. Discuss clinical presentation and imaging workup of intracranial aneurysms with their interventional radiological management. (20 M, 2018)
2. Describe cerebral arterial territories with neat labelled diagram along with circle of Willis and its branches with special mention of watershed areas and lacunar infarcts. (20 M, 2018)
3. Labelled neat diagram of the vessels of vertebra-basilar system and circle of Willis . Discuss technique and imaging in acute cerebral stroke (20 M, 2016)
4. A 60 yr old man while attending his college reunion suddenly developed slurring of speech and weakness of one side of body and rushed to the emergency of a multi modality centre. As a radiology resident on duty, what do you have to offer to such a patient? (20, 2018), (20 M 2019 with CT perfusion )
5. Development of brain and various sulcation and migrational abnormalities with their imaging features (20 M)
6. Mechanism, CT and MR features of Diffuse axonal injury (20, 2018 Mock SJH)
7. Diffusion and perfusion weighted MRI in stroke (20 M, Mock)
8. MRI in cerebral tuberculoma (2019)

9. MR Tractography (10 M), (10 M)
10. Diffusion tensor imaging (10, 2018)
11. Functional imaging of brain (10 M)
12. MR angiography (10 M)
13. MR Spectroscopy (10M)
14. Enumerate differential diagnosis and role of MR in evaluation of white matter diseases in adults (20, 2018)
15. Enumerate algorithmic radiological approach to acquired white matter disease? Enumerate radiological features of MS. (20, Mock SJH 2018)
16. Role of CT perfusion parameters in brain tumours (10, 2018)
17. Describe vascular supply of brain. Role of imaging in diagnosis of malignant brain tumours (20M)
18. Arnold Chiari malformations (10M, 2016)
19. Radiological signs of CP angle tumours and tabulate radiological differences between meningioma and schwannoma (3<sup>rd</sup> year Mock exam SJH 2018)
20. Classify various intracranial brain tumours. Discuss imaging features in Acoustic neuroma on plain radiography, CT and MRI (20 M)
21. MR imaging of pituitary gland (10 M)
22. Radiological manifestations of Spinal tuberculosis (20 M)

23. Imaging features of various extradural spinal tumours with differentiating features from intradural spinal tumours (10 M)

24. Etiology and imaging features of HIE (20 M)

### **H & N, ENT, EYE**

1. Labelled diagram of cross sectional anatomy of neck spaces. Importance of parapharyngeal space in localisation of neck masses
2. Causes of enlarged jugular foramen, imaging features and Interventional management (10, 2018)
3. Different X ray views for petrous bone (10 M)
4. Optic nerve tumours -imaging features (10 M, 2016)
5. Pseudo-tumour orbit (10M)
6. Unilateral eye proptosis. *Dr. Anuj Aggarwal*
7. Enumerate various Sinonasal masses. Imaging features of JNA (20 M, 2019)
8. Sialography (10M), Dacryocystography (2015)
9. Branchial cysts (10 M)
10. Parotid tumours (10 M)
11. Pre-treatment imaging strategies in congenital SNHL. (20 M, mock)
12. TIRADS (20 M, Mock)
13. Role of USG imaging in thyroid (10M)

### **Obs-Gyne**

1. Define IUGR. Discuss role of USG and color Doppler in evaluation of IUGR. (20M)
2. Color Doppler in IUGR (10 M)

3. Intra uterine fetal death (10 M)
4. Antenatal soft markers (10, 2018)
5. 1<sup>st</sup> trimester anomaly scan ( 2019)
6. Nuchal thickness (10 M)
7. Fetal MRI (10M)
8. Causes and imaging of first trimester bleeding (10M, 2016)
9. Role of Doppler in IVF (10M)
10. PCPNDT Forms (20 M, Mock) (10 M, final)
- 37.

## **GUT**

1. Wilms tumour (10 M), 2019
2. Hypernephroma (10 M)
3. IR in management of renal tumours (20 M)
4. CT checklist for renal donor evaluation (10 M, 2019)
5. How will you radiologically evaluate a) donor kidney for renal transplant b) transplanted kidney with its various complications? (20, 2018)
6. Radiological and imaging features of obstructive uropathies (20 M)
7. Imaging in renovascular HTN.
8. Captopril scintigraphy.
9. Erectile dysfunction (10, 2018)
10. Mullerian duct anomalies (10, 2018)



11. Discuss common imaging techniques to evaluate normal endometrium & describe appearance of normal endometrium. Radiological approach to 47 year female presenting with AUB and describe imaging features (20M, 2016)
12. Discuss PIRADS (20, Mock)
13. IVU (10M )
14. Contrast induced nephropathy (10 M)
15. Suitable diagram to illustrate RP anatomy and discuss the various adrenal masses (20M , 2016)
16. MR imaging of adrenal tumours (10, 2018)
17. Adrenal adenoma (2019)

## MSK

1. Rickets (10 M) *Dr. Anuj Aggarwal*
2. Cystic bone diseases (2015)
3. Classification of bone tumours . Radiological features of any 4 chondroid bone tumours (20 M, 2019)
4. Briefly describe various malignant bone tumours. Give imaging features of Ewings sarcoma on plain radiography, CT and MRI. (20 M)
5. Causes of dwarfism with radiological features (20M)
6. Extramedullary haematopoiesis (10 M, 2018)
7. Stress fracture (10, 2018)
8. Role of USG and MRI in DDH (20, Mock exam SJH 2018)
9. Osteopetrosis (10 M)
10. Bone changes in leukemia (10 M)

11. Skeletal manifestations of hyperparathyroidism (10M, 2016)
12. Skeletal manifestations of Hematopoetic disorders (10 M, 2016)
13. Extraskeletal manifestations of RA.
14. Secondary ossification centre of medicolegal relevance in sexual violence case (2019)
15. Bone age estimation (2015)

## **PAPER 1 & 4**

### **Physics and Recent Advances, Miscellaneous**

1. Primary and secondary radiation ? Harmful effects of secondary radiation on quality of radiographs and measures to reduce them ? (20 M)
2. Various ways and means to reduce radiation in a patient during fluoroscopy and radiography. (15, 2018)
3. Radiation protection in DSA (2019)
4. Legal responsibilities and duties of a radiologist in clinical practice (10 , 2018)
5. Harmful effects of radiation ? measures to prevent them (20 M)
6. Hypersensitivity reactions to contrast agents (10 M)
7. Mx of contrast induced shock (10 M)
8. Major components of PACS network & their functions in radiology (10, 2018)
9. Short note PACS (10 M)
10. Virtual colourscopy (10 M)
11. Intensifying screens (10, 2018), 2016.
12. Modern X ray tube (10, 2018), (10 M 2017)
13. Focal spot in X ray tube (2019)

14. Safety measures in MRI (10, 2018)
15. MR elastography (10, 2018)
16. Fusion imaging (10, 2018)
17. Principle of CT (Final ). Enumerate role of Dual energy CT (20,2018 Mock)
18. Application of iodine maps in DECT (2019)
19. AI: A threat to the radiologist. Give arguments in favour and against, citing potential applications of AI (20 M, 2019)
20. Radiomics and role of AI in radiology(20 M, Mock 2018)
21. Role of PET CT in oncology (10 M). Pharmaceuticals in PET CT (2015)
22. CT Angio in PVD (10M )
23. Varicose veins of LL (10 M). IR in Varicose veins.
24. USG contrast agents (2015)
25. Lymphangiography
26. Doppler waveform interpretation (10 M)
27. THI
28. DR system.
29. Image receptors in DR (2019)
30. Factors affecting spatial resolution in MRI (10M 2019)
31. Macrocyclic MR contrast agents (2019)
32. Shear wave USG elastography (2019)

*Dr. Anuj Aggarwal*