

To be filled by the candidate)

Booklet S. No. _____

Roll No. (In figures) _____

Roll No. (In words) _____

Name of the Candidate : _____

Father's Name : _____

Center of Examination : _____

Total No. of Questions : 50

Paper Code- 2618

**Name of Examination- Senior Resident/Specialist Tutor Entrance 2026
Specialty-Radiodiagnosis**

Time Allowed : 90 Minutes

Maximum Marks : 200

IMPORTANT NOTE:

- (i) OMR Answer Sheet will be supplied by the Examination Centre Superintendent for answering the questions.
- (ii) Use **Blue/Black Ink/ Ball Pen only**, to darken the appropriate circle in the OMR Answer Sheet.
- (iii) Darken one circle deeply for each question in the OMR Answer Sheet, as faintly darkened circle might be rejected by the Optical Scanner.
- (iv) Darkening of more than one circle shall be rejected by the scanner. **Over-writing, cutting, erasing or use of White Fluid is not allowed.**
- (v) Before dealing with the question paper, fill-up the required information with Blue/Black Ball Pen correctly both in the Question Booklet and in the OMR Answer Sheet.
- (vi) Do not fold the OMR Answer Sheet nor put any mark here and there to avoid rejection by the Optical Scanner.
- (vii) Write Roll. No. carefully on the OMR Answer Sheet and darken the appropriate circle properly.
- (viii) **Each question carries Four Marks while 1 mark shall be deducted for each incorrect response.**
- (ix) **Use of Calculator is not allowed.**
- (x) **No over-writing, cutting, erasing or use of white fluid is allowed.**
- (xi) Rough work be done on the sheet(s) at the end.
- (xii) **MOBILE TELEPHONES (EVEN ON SWITCH-OFF MODE) AND SUCH OTHER ELECTRONIC DEVICES ARE NOT ALLOWED INSIDE THE EXAMINATION HALL.**
- (xiii) The question paper-booklet will be retained by the candidate after the entrance test is over.

Q1. Hot cross bun sign on MRI is seen in all of the following except:

- a) Multisystem atrophy (MSA-C)
- b) Spinocerebellar ataxia
- c) PML
- d) Multiple Sclerosis

Answer = d

Q2. Mini brain appearance on MRI is seen in:

- a) Multiple Myeloma
- b) Metastasis
- c) Leukemia
- d) Gaucher's disease

Answer = a

Q3. All of the following are features of malignant vertebral collapse except:

- a) Abnormal signal intensity extending into pedicles and posterior neural elements
- b) Pre and paravertebral soft tissue mass
- c) Convex posterior vertebral border
- d) Horizontal band delineating the abnormal vertebral marrow signal from the normal fatty marrow.

Answer = d

Q4. Patient presented with delayed milestones. MRI findings are diagnostic of:



- a) Waldenstrom's macroglobulinemia
- b) Neurosarcoidosis
- c) Hypoxic ischemic encephalopathy
- d) Agenesis of corpus callosum.

Answer = d

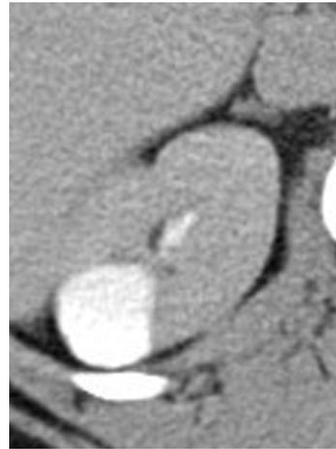
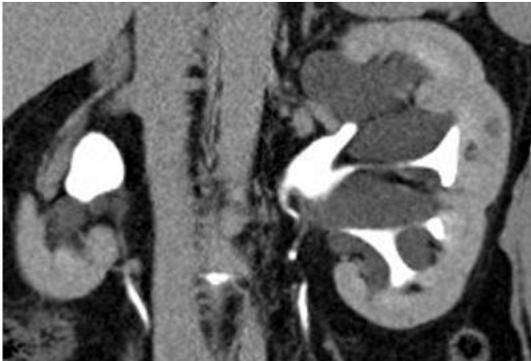
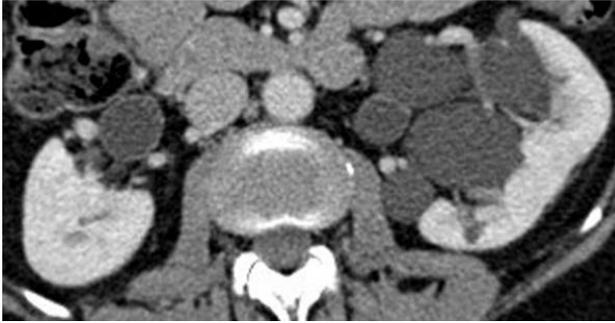
Q5. Child presented with painful limp in the left lower limb. X ray findings are consistent with the diagnosis of:



- a) Coxa valga
- b) Development dysplasia of hip
- c) Perthes's disease
- d) Osteomyelitis

Answer = c

Q6. CT images are diagnostic of..



- a) Parapelvic cysts
- b) Xanthogranulomatous pyelonephritis
- c) Clear cell RCC
- d) Renal Tuberculosis

Answer = a

Q7. Young female in reproductive age group with history of increased urinary frequency. CT images are given below. Diagnosis is:

- a) Acute Pyelonephritis
- b) Focal renal infarct
- c) Calyceal diverticulum
- d) Renal Candida infection.

Answer = c

Q8. Alteration of this parameter is one of the earliest doppler sign of RAS.

- a) Resistive index
- b) Renal-Renal Ratio
- c) Acceleration index
- d) Parvus tardus waveform

Answer = c

Q9. Diagnose the condition.



- a) Congestive heart failure
- b) Malignant Ascites
- c) Pseudomyxoma peritonei
- d) Chronic hemoperitoneum

Answer = c

Q10. Patient presented with pain in left iliac region. Based on CT examination your diagnosis is.



- a) Epiploic appendagitis
- b) Diverticulitis
- c) Mesenteric infarction
- d) Fibrosing mesenteritis

Answer = a

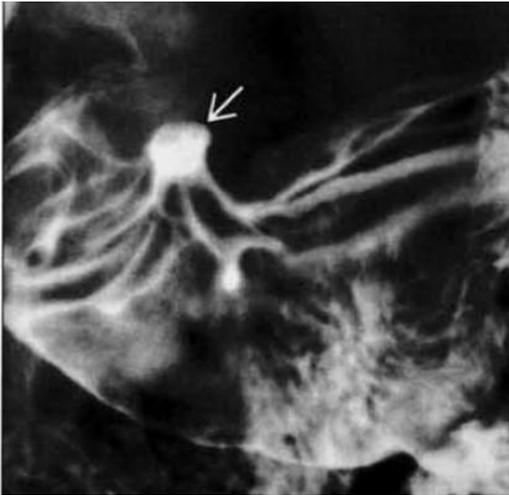
Q11. Pathology shown in the scan is



- a) Spigelian Hernia
- b) Femoral Hernia
- c) Umbilical Hernia
- d) Ventral Hernia

Answer = a

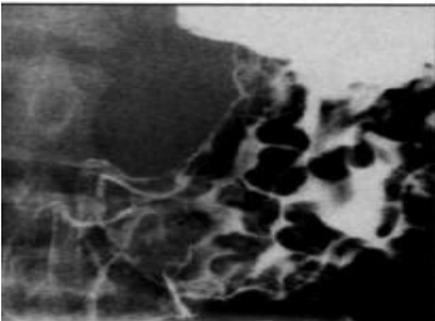
Q12. Arrow in the picture indicates



- a) Hypertrophic Gastric folds
- b) Benign gastric ulcer
- c) Malignant gastric ulcer
- d) Leiomyoma

Answer = b

Q13. In this patient presenting with weight loss, the diagnosis is



- a) Gastric cancer
- b) Leiomyoma
- c) Lymphoma
- d) Menetrier's disease.

Answer = c

Q14. Magic angle phenomenon is seen in

- a) T1 WI

- b) T2WI
- c) Fat sat image
- d) PD image

Answer = a

Q15. Most suitable investigation for detection of pneumoperitoneum is:

- a) X ray abdomen erect
- b) X ray abdomen supine
- c) X ray abdomen decubitus
- d) X ray Chest PA view

Answer = d

Q16. All of the following are seen in mesenteric ischemia except:

- a) Thumbprinting
- b) Pseudopolyps
- c) Lead pipe colon
- d) Irregular mucosal folds

Answer = b

Q17. Comb sign is seen in all of the following except:

- a) Active Crohn's disease
- b) Vasculitis
- c) Bowel obstruction
- d) Lymphoma

Answer = d

Q18. All of the following are seen in multiple sclerosis except:

- a) Temporal and spatial dissemination.
- b) Complete Ring lesions
- c) Dawson's fingers

d) Brain atrophy

Answer =b

Q19. All of the following are normal variants of the labrum of the shoulder joint except:

- a) Sublabral foramen
- b) Buford complex
- c) Sublabral recess
- d) Bankart Lesion.

Answer = d

Q20. What is not true about adhesive capsulitis of the shoulder joint

- a) Disease is inflammatory in nature
- b) Disease is progressive with increasing severity of joint immobilization
- c) Diagnosis can be confirmed by MRI
- d) It involves the rotator interval.

Answer =b

Q21. All of the following can be seen in carpal tunnel syndrome except:

- a) Pseudoneuroma of the median nerve
- b) Flattening of median nerve
- c) Increased signal intensity of median nerve on T2 WI.
- d) Increased Signal intensity of flexor tendons on T2 WI

Answer = d

Q22. All of the following are true about normal intervertebral discs on MRI except:

- a) Signal intensity of discs on T1WI is similar to muscles
- b) A horizontally oriented fibrous intranuclear cleft is present which is low signal on T2WI
- c) Extension of the disk upto 3mm beyond the vertebral margin is normal.
- d) Posterior margin of the disc is convex at lumbosacral junction.

Answer =c

Q23. All are true for sequestered disc except:

- a) It is not in contact with parent disc
- b) Fragments can migrate into posterior epidural space
- c) It is usually symptomatic
- d) It can be removed by percutaneous discectomy

Answer = d

Q24. Investigation of choice for distinguishing epidural post operative scarring from recurrent disc herniation is:

- a) Non contrast MRI
- b) CE MRI
- c) PET CT
- d) CECT

Answer = b

Q25. All are true about slipped capital femoral epiphysis except:

- a) Common in adolescents
- b) More common in obese patients
- c) Growth plate becomes narrow.
- d) It may lead to osteonecrosis.

Answer = c

Q26. All are true about Baker's cyst except

- a) It occurs in popliteal bursa which is a joint recess.
- b) It passes between the tendon of medial head of gastrocnemius and semitendinosus.
- c) It can normally contain a small amount of fluid.
- d) It can mimic deep vein thrombosis clinically.

Answer = b

Q27. All of the following are MRI sequences for cartilage except:

- a) d-GEMRIC
- b) T1 rho
- c) 3D SPGR
- d) FLAIR

Answer = d

Q28. All of the following are true about germinal matrix hemorrhage in neonatal brain except:

- a) In the fetus, germinal matrix occurs in periventricular location and in the cerebellum.

- b) Germinal matrix capillaries are lined by a single layer of endothelium with no muscle layer or serosa.
- c) Majority of cases occur in term babies in the first two weeks of life.
- d) GMH is best picked up on SWI images.

Answer = c

Q29. Following lesions are included in Carney triad except:

- a) Gastric GIST
- b) Pulmonary chondroma
- c) Lung sequestration
- d) Extra adrenal paraganglioma

Answer = c

Q 30. All are true about toxic megacolon except:

- a) Colon is dilated and haustral.
- b) Descending colon is most commonly involved.
- c) Pseudopolyps can be seen.
- d) It can be the initial presentation of ulcerative colitis.

Answer = b

Q31. All are true about colonic diverticulitis except:

- a) Mural wall thickening of more than 2 cm is common
- b) There is a long segment of colonic involvement.

- c) CT is the modality of choice for diagnosis of diverticulitis
- d) Fat stranding indicates active inflammation.

Answer = a

Q32. All are true about liver cirrhosis except:

- a) Outline of the liver becomes nodular.
- b) Siderotic nodules become hyperdense on CECT and are better visualized.
- c) Lateral segment of left lobe is enlarged
- d) There is widening of the fissures.

Answer = b

Q33. All are causes of hepatic capsular retraction except:

- a) Cirrhosis
- b) Epitheloid hemangioendothelioma
- c) Sclerosed hepatic hemangioma
- d) FNH

Answer = d

Q34. All are true about Budd Chiari syndrome except:

- a) Liver is enlarged and hyperdense on NCCT in the acute phase due to hepatic congestion
- b) Early enhancement of caudate lobe is seen.
- c) Hepatic veins are hypodense on CECT

- d) Large regenerative nodules can be seen.

Answer = a

Q35. Newer paradigms for diagnosis of acute cholecystitis include all of the following except:

- a) Tensile fundus sign.
- b) Echogenic fat in Calot's triangle
- c) Increased flow in cystic artery with elevated PSV on CDI.
- d) Ultrasound Murphy's sign remains a sensitive sign for diagnosing acute cholecystitis.

Answer = d

Q36. All are true about annular pancreas except:

- a) Gastric ulcers and pancreatitis can be associated with annular pancreas.
- b) Double Bubble sign can be seen.
- c) Duodenal ectasia may be present.
- d) Normal main pancreatic duct in the body and tail.

Answer = c

Q37. All are true regarding pediatric angiography and endovascular procedures except:

- a) Umbilical artery is an alternative access site in neonates.
- b) Femoral artery less than 3mm in diameter can result in lower limb ischemia post intervention.

- c) Vascular sheaths can result in increased incidence of vascular trauma.
- d) The French size of vascular sheath describes its luminal diameter and not its outer dimension.

Answer = c

Q38. All of the following indicate unresectability in Ca pancreas except:

- a) Hepatic metastasis
- b) SMA encasement
- c) Coeliac axis encasement
- d) SMV encasement

Answer = d

Q39. In the Biffi scale for blunt cerebrovascular injury, grade III injury refers to:

- a) Dissection
- b) Intimal tear
- c) Thrombosis
- d) Pseudoaneurysm formation

Answer = d

Q40. Which of the following statements is true:

- a) Halo sign is seen in angioinvasive aspergillosis, hemorrhagic pulmonary metastasis and vasculitis.

- b) Air crescent sign is seen in angioinvasive aspergillosis in the setting of acute neutropenia.
- c) Reverse halo sign is specific for invasive fungal infection.
- d) Presence of both halo and reverse halo sign in an immune-compromised patient is pathognomonic for mucormycosis.

Answer = a

Q41. All are true regarding pulmonary tuberculosis except:

- a) In immunocompetent patient disease is characterized by apical cavitary consolidation.
- b) Inflammatory pseudoaneurysms can occur.
- c) Empyema necessitans results from direct infection of the pleura
- d) Non tubercular mycobacteria can cause symptoms similar to tuberculosis with cavitary disease in immunocompetent patients.

Answer = d

Q42. What is not true about Immune-Reconstitution Inflammatory Syndrome in HIV positive patients:

- a) It occurs after initiation of anti-retroviral therapy in the first 2 months.
- b) Tuberculosis associated IRIS causes aggravation of lymphadenopathy, consolidation and nodules.

- c) Differential diagnosis includes drug resistant tuberculosis.
- d) Tuberculosis associated IRIS is only seen when CD 4 count is low.

Answer = d

Q43. Features of Candida pneumonia include all except:

- a) Most common presentation is in the form of nodules
- b) Miliary nodule pattern may occur
- c) Tree in bud appearance can be seen
- d) Pleural effusion and bronchiectasis are common.

Answer = d

Q44. All are true for post transplant lymphoproliferative disorder (PTLD) except:

- a) Most common presentation is as a nodal mass.
- b) Nodal mass is not FDG avid on PET.
- c) Extranodal disease may present as mediastinal mass or pulmonary nodules.
- d) PTLN is common after heart and lung transplants.

Answer =b

Q45. All of the following are applications of spectral CT except:

- a) Detection of chemical composition of calculi in the urinary tract.
- b) Cartilage Mapping in osteoarthritis.

- c) Detection of ER / PR status in breast cancer
- d) Better detection of diffuse axonal injuries.

Answer = d

Q46. In PIRADS all these MRI sequences are included except:

- a) T2 WI
- b) Spectroscopy
- c) DWI
- d) CE MRI

Answer = b

Q47. All are true about hypoxic ischemic encephalopathy (HIE) except

- a) Basal ganglia and thalamic involvement occurs in severe disease.
- b) DEHSI does not predict adverse clinical outcome.
- c) Seizures and anticonvulsant therapy can cause restricted diffusion mimicking ischemia.
- d) Restricted diffusion in corpus callosum due to HIE is not a predictor of adverse neurological outcome.

Answer = d

Q48. Tigroid pattern in brain MRI is seen in

- a) Alexander's disease
- b) Krabbe's disease
- c) Metachromatic Leucodystrophy

d) Van der Knapp disease

Answer = c

Q49. Diagnostic hall mark of Glutaric aciduria Type 1 is

- a) Widened non operculized sylvian fissures
- b) Cerebellar hypoplasia
- c) Degeneration of inferior olivary nucleus
- d) Thalamic hyperintensity on T1WI

Answer = a

Q 50. Maximum permissible effective radiation dose for a radiologist is:

- a) 50 mSv per year
- b) 20 mSv/year
- c) 10 mSv /year
- d) 30 mSv/year

Answer =b

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