

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE ASKED TO DO SO

Test Booklet Series

T. B. C. : AP – 15 – 17/18

A

TEST BOOKLET
ASSISTANT PROFESSOR IN O.M.E.S. Sl. No.
(RADIOLOGY)

1750

Time Allowed : 3 Hours

Maximum Marks : 200

: INSTRUCTIONS TO CANDIDATES :

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS TEST BOOKLET DOES NOT HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET OF THE SAME SERIES ISSUED TO YOU.
2. ENCODE CLEARLY THE TEST BOOKLET SERIES A, B, C OR D, AS THE CASE MAY BE, IN THE APPROPRIATE PLACE IN THE ANSWER SHEET USING BALL POINT PEN (BLUE OR BLACK).
3. You have to enter your **Roll No.** on the Test Booklet in the Box provided alongside. **DO NOT** write anything else on the Test Booklet.
4. YOU ARE REQUIRED TO FILL UP & DARKEN ROLL NO., TEST BOOKLET / QUESTION BOOKLET SERIES IN THE ANSWER SHEET AS WELL AS FILL UP TEST BOOKLET / QUESTION BOOKLET SERIES AND SERIAL NO. AND ANSWER SHEET SERIAL NO. IN THE ATTENDANCE SHEET CAREFULLY. WRONGLY FILLED UP ANSWER SHEETS ARE LIABLE FOR REJECTION AT THE RISK OF THE CANDIDATE.
5. This Test Booklet contains 200 items (questions). Each item (question) comprises four responses (answers). You have to select the correct response (answer) which you want to mark (darken) on the Answer Sheet. In case, you feel that there is more than one correct response (answer), you should mark (darken) the response (answer) which you consider the best. In any case, choose **ONLY ONE** response (answer) for each item (question).
6. You have to mark (darken) all your responses (answers) **ONLY** on the **separate Answer Sheet** provided by using **BALL POINT PEN (BLUE OR BLACK)**. See instructions in the Answer Sheet.
7. All items (questions) carry equal marks. All items (questions) are compulsory. Your total marks will depend only on the number of correct responses (answers) marked by you in the Answer Sheet. **There will be no negative markings for wrong answers.**
8. Before you proceed to mark (darken) in the Answer Sheet the responses to various items (questions) in the Test Booklet, you have to fill in some particulars in the Answer Sheet as per the instructions sent to you with your **Admission Certificate**.
9. After you have completed filling in all your responses (answers) on the Answer Sheet and after conclusion of the examination, you should hand over to the Invigilator the **Answer Sheet** issued to you. You are allowed to take with you the candidate's copy / second page of the Answer Sheet along with the **Test Booklet**, after completion of the examination, for your reference.
10. Sheets for rough work are appended in the Test Booklet at the end.

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SEAL

1. The most common retrobulbar orbital mass in adults is :
 - (A) Neurofibroma
 - (B) Cavernous haemangioma
 - (C) Meningioma
 - (D) Schwannoma
2. Least affected by radiation :
 - (A) GIT
 - (B) Gonads
 - (C) Cartilage
 - (D) Lymphocytes
3. Barcket calcification on skull X-ray is seen in :
 - (A) Corpus collosum lipoma
 - (B) Sturge weber syndrome
 - (C) Meningoma
 - (D) Craniopharyngioma
4. The first CT scan was invented by :
 - (A) Hitachi, Japan
 - (B) Mitsubishi, Japan
 - (C) Electromusical instruments, England
 - (D) General Electric, USA
5. Characteristic X-ray finding in ASD is :
 - (A) Enlarged left ventricle
 - (B) Enlarged left atrium
 - (C) Pulmonary artery hypertension
 - (D) Pulmonary plethora
6. 'Dripping candle wax' appearance is The characteristic of :
 - (A) Osteopoikilosis
 - (B) Paget's disease
 - (C) Bone infarcts
 - (D) Melorheostosis
7. Rasmussen aneurysm is :
 - (A) Bronchial artery aneurysm
 - (B) Pulmonary artery aneurysm
 - (C) Internal thoracic artery aneurysm
 - (D) Subclavian artery aneurysm
8. Causes of sclerotic bone metastases may be ALL EXCEPT :
 - (A) Carcinoid tumour
 - (B) Carcinoma breast
 - (C) Carcinoma endometrium
 - (D) Lymphoma
9. Examples of non-ionic iodinated Low osmolar contrast media are all EXCEPT :
 - (A) Iohexol
 - (B) Iopromide
 - (C) Ioversol
 - (D) Ioxaglate
10. All of the following are examples of embolising agents used as permanent occluding agents EXCEPT :
 - (A) Gelatin sponge (Gelfoam)
 - (B) N-butyl cyanoacrylate (NBCA) or glue
 - (C) Polyvinyl alcohol (PVA) particles
 - (D) Absolute alcohol

11. Calcifications are RARELY seen in which of the following breast conditions on mammography ?
- (A) Ductal Carcinoma in situ
 - (B) Invasive lobular carcinoma
 - (C) Invasive ductal carcinoma
 - (D) Fat necrosis
12. 'Phemister Triad' in tubercular osteoarthritis includes all EXCEPT :
- (A) Periarticular calcification
 - (B) Juxta-articular osteopenia
 - (C) Peripherally located osseous erosions
 - (D) Gradual narrowing of joint space
13. The most important radiograph that will differentiate between achondroplasia and hypochondroplasia is :
- (A) X-ray skull
 - (B) X-ray pelvis
 - (C) X-ray spine
 - (D) X-ray femur
14. True about Nephrogenic Systemic Fibrosis (NSF) are all EXCEPT :
- (A) It occurs in patients with decreased renal function
 - (B) It characteristically involves the face
 - (C) It usually present weeks to months after contrast exposure
 - (D) Definite diagnosis can be established through a deep skin biopsy
15. A 35 years old male (non-smoker) with no significant past history has a chest X-ray done for a routine medical examination. X-ray reveals a large 6 cm sized well-defined mass lesion making an obtuse angle with the right lower lateral chest wall. CT chest shows a pleural based, solid, non-calcified, well margined mass lesion showing homogeneous enhancement, without abnormality of overlying ribs or chest wall extension. Which is the most likely diagnosis ?
- (A) PNET (Primitive Neuro-ectodermal Tumour)
 - (B) Neurofibroma
 - (C) Peripheral bronchogenic carcinoma (adenocarcinoma)
 - (D) Localised fibrous tumour of the pleura (fibrous mesothelioma)

16. A 7 years old boy is referred from paediatric clinic for an MRI brain to investigate learning difficulties and abnormal gait. The MRI reveals high T2 W/FLAIR signal in posterior corpus callosum and in peritrigonal white matter. There is marginal enhancement at the anterior edge of the abnormal areas. Which one of the following is the most likely diagnosis ?
- (A) Alexander leukodystrophy
 - (B) Krabbe's leukodystrophy
 - (C) Maple syrup urine disease
 - (D) Adrenoleukodystrophy
17. A 6 years old girl with several pigmented patches on skin presents with decreasing vision. MRI brain shows fusiform expansion of both optic nerves with optic foramen enlargement. In addition there are multiple small T2 bright lesions in BG, and pons. What is the most likely diagnosis ?
- (A) NF-1 with optic nerve gliomas and cerebral hamartomas
 - (B) NF-1 with optic nerve meningiomas and cerebral hamartomas
 - (C) NF-2 with optic nerve gliomas and cerebral hamartomas
 - (D) Tuberous sclerosis
18. Which of the following is CORRECT about a bicornuate uterus ?
- (A) It is more common than a septate uterus
 - (B) It can reliably be differentiated from a septate uterus on routine hysterosalpingography
 - (C) It is differentiated from a septate uterus on MRI by identifying myometrium between the two uterine horns
 - (D) It is often complicated by cervical insufficiency
19. Which of the following statements about thymomas is INCORRECT ?
- (A) Approximately one-third are associated with Myasthenia gravis
 - (B) They are rare in the age group of less than 20 years
 - (C) Calcification is a very uncommon finding even on CT
 - (D) Invasive thymomas may show encasement of mediastinal vessels

20. Dynamic CECT may be used to characterize adrenal lesions. Which one of the following statements best describes the imaging characteristics of a primary adrenal carcinoma on portal venous phase (70 sec) and subsequent delayed phase (15 min) CECT images ?
- (A) No measurable enhancement in either phase
 - (B) Poor enhancement in portal venous phase with an increase in enhancement on delayed images
 - (C) Washout by greater than 80% on delayed phase compared with the portal venous phase images
 - (D) Washout of less than 40% on delayed images compared with the portal venous phase images
21. The presence of appendix within the hernia sac in an abdominal wall hernia is termed :
- (A) Littre's hernia
 - (B) Amyand's hernia
 - (C) Richter's hernia
 - (D) Spigelian hernia
22. All of the following liver lesions may be associated with liver capsular retraction EXCEPT :
- (A) Giant hemangioma
 - (B) Epithelioid hemangioendothelioma
 - (C) Intrahepatic cholangiocarcinoma
 - (D) Focal confluent fibrosis
23. All of the following are true about focused grids EXCEPT :
- (A) They are made up of lead strips that are slightly angled
 - (B) They decrease the amount of radiation that the patient receives
 - (C) They require careful centering to prevent grid cutoff
 - (D) The focusing range is fairly wide for a low-ratio grid and narrow for a high-ratio grid
24. An elevated level of N-Acetyl-Aspartate (NAA) is seen on MR spectroscopy in which of the following conditions ?
- (A) Premature infants
 - (B) Canavan's disease
 - (C) Congenital rubella infection
 - (D) Alexander's disease

25. All of the following statements about the 'heel effect' are true, EXCEPT :
- (A) It describes the variation in intensity of the X-ray beam that leaves an X-ray tube
 - (B) It leads to greater intensity of film exposure on the anode side of the tube as compared to the cathode side
 - (C) The heel effect is less noticeable when larger focus-film distances are used
 - (D) For equal target-film distances, the heel effect is less with smaller film sizes
26. A 46 years old woman presents with weakness and numbness in lower limbs associated with mid thoracic back pain. MRI of the spine reveals a well defined intradural, extramedullary mass in mid thoracic region. The mass is isointense to spinal cord on both T1 and T2 weighted images and shows uniform post contrast enhancement. What is the most likely diagnosis ?
- (A) Astrocytoma
 - (B) Metastasis
 - (C) Meningioma
 - (D) Multiple myeloma
27. Which of the following bone tumours when involving the vertebral column is exclusively confined to the posterior elements (i.e. without extension to vertebral body) :
- (A) Aneurysmal bone cyst
 - (B) Osteochondroma
 - (C) Osteoblastoma
 - (D) Osteosarcoma
28. Typical patterns of benign calcification in a solitary pulmonary nodule on CT are all EXCEPT :
- (A) Diffuse calcification
 - (B) Concentric (laminated) calcification
 - (C) Dense central nidus
 - (D) Fine stippled calcification
29. All the following are true about retroperitoneal fibrosis EXCEPT :
- (A) It often causes ureteric obstruction, usually at L4-L5 level
 - (B) It often displaces lower ureters laterally
 - (C) Early, active cases may show contrast enhancement on CT or MRI
 - (D) A periaortic soft tissue lesion may be seen encasing the aorta

30. 'Wave sign of mulvey' is seen in which of the following ?
- (A) Normal thymus
 - (B) Central bronchogenic carcinoma
 - (C) Pancoast tumor
 - (D) Round atelectasis
31. 'Silhouette sign' was given by which of the following scientists ?
- (A) Felson
 - (B) Seldinger
 - (C) Golden
 - (D) Fleischner
32. 'Head cheese' sign on HRCT chest is typical of which condition :
- (A) Respiratory bronchiolitis
 - (B) Cryptogenic Organizing Pneumonia (COP)
 - (C) Hypersensitivity Pneumonitis
 - (D) Allergic Bronchopulmonary Aspergillosis (ABPA)
33. A full term neonate has a palpable left sided abdominal mass. On ultrasound the right kidney appears normal while the left kidney is grossly enlarged containing multiple anechoic cysts of varying sizes which do not communicate with each other. A subsequent MAG3 scan confirms normal function within the right kidney and no evidence of isotope uptake by the left. What is the most likely diagnosis ?
- (A) Multicystic dysplastic kidney disease
 - (B) ARPKD
 - (C) Hydronephrosis
 - (D) Infantile form of medullary sponge kidney
34. A 37 years old woman was diagnosed with cervical carcinoma. MRI shows a 4 cm tumor invading the upper third of vagina and infiltrating the left parametrium. Most accurate stage is :
- (A) T1b
 - (B) T2a
 - (C) T2b
 - (D) T3a
35. Which MRI feature is NOT seen in benign endometrioma of the adnexa ?
- (A) T1 hyperintensity on fat-suppression sequences
 - (B) T2 hypointensity on fastspin-echo sequences
 - (C) T2 hyperintensity on fastspin-echo sequences
 - (D) T1 isointense nodules that enhance with gadolinium

36. When a fetal pole and fetal cardiac activity are identified at 6 weeks of pregnancy on a Trans Vaginal Scan (TVS), expected normal range of measured fetal heart rate is approximately :
- (A) 100 to 115 beats per minute
 - (B) 144 to 172 beats per minute
 - (C) 137 to 144 beats per minute
 - (D) 120 to 144 beats per minute
37. Which of the following is NOT a criterion for unresectability for carcinoma pancreas ?
- (A) Doudenal infiltration
 - (B) Liver metastases
 - (C) Ascites
 - (D) Encasement of SMA
38. Which of the following is UNCOMMON as a presenting feature of small bowel lymphoma ?
- (A) Abdominal mass
 - (B) Stricture with bowel obstruction
 - (C) Perforation
 - (D) Intussception
39. Which of the following statements about Primary Sclerosing Cholangitis is INCORRECT ?
- (A) It is commonly associated with Inflammatory Bowel Disease (IBD)
 - (B) Hilum is a common site for stricture formation involving bile ducts
 - (C) Multiple stones within intrahepatic bile ducts are a common finding on ultrasound
 - (D) Patients are at increased risk for developing cholangio-carcinoma
40. Which of the following is a feature which most strongly suggests malignant nature of a thyroid nodule on ultrasound ?
- (A) Echogenic appearance
 - (B) Complete surrounding halo
 - (C) Central vascularity
 - (D) Coarse intralesional calcification
41. While performing an ultrasound for suspected DDH (Developmental Dysplasia of the hip, what values of the alpha and beta angles suggest a normal, stable hip that does not need treatment ?
- (A) Alpha angle < 43 degrees, beta > 70 Degrees
 - (B) Alpha angle 43-49 degrees, beta > 77 Degrees
 - (C) Alpha angle 50-60 degrees, beta 55-77degrees
 - (D) Alpha angle > 60 degrees, beta < 55 degrees

42. A 68 years old man presents with left facial weakness and a parotid mass. Investigations reveal a left parotid tumour which is found to be an adenoid cystic carcinoma following surgical resection. Which of the following is true for adenoid cystic carcinoma affecting the salivary glands ?
- (A) It has a propensity for perineural spread
 - (B) It is a rapidly growing tumour
 - (C) It is also known as Warthin's tumour
 - (D) It is the commonest tumour of the parotid gland
43. A 21 years old man has facial and mandibular radiographs following minor trauma. These show no evidence of fracture, however there are multiple dense bony lesions arising from the paranasal sinuses and the angle and ramus of the mandible. These lesions are entirely asymptomatic. Which one of the following conditions may be associated with these findings ?
- (A) Gardner syndrome
 - (B) Gorlin-Goltz syndrome
 - (C) Juvenile polyposis
 - (D) Canada-Cronkhite syndrome
44. Which of the following is TRUE about Lobar holoprosencephaly ?
- (A) The thalami and basal ganglia are partially separated and septum pellucidum is absent
 - (B) The thalami and basal ganglia are well separated and septum pellucidum is absent
 - (C) The thalami and basal ganglia are partially separated and septum pellucidum is present
 - (D) The thalami and basal ganglia are well separated and septum pellucidum is present
45. Which of the following is INCORRECT regarding retinoblastoma ?
- (A) Intraocular calcification in children < 3 years is highly suggestive of this diagnosis
 - (B) Calcification as small as 2 mm can be detected on CT
 - (C) MRI typically reveals low signal on T1 and high signal on T2 weighted images
 - (D) Tumour extension beyond the eye has a poor prognosis

46. The most common anatomic variant of the biliary system is :
- (A) Triple confluence
 - (B) Right posterior sectoral duct joining left hepatic duct
 - (C) Right posterior sectoral duct joining common hepatic duct after confluence
 - (D) Accessory right hepatic duct
47. Which of the following CT features favours a diagnosis of Xanthogranulomatous Cholecystitis over GB malignancy ?
- (A) Disruption of GB mucosal layer
 - (B) Presence of asymmetric GB wall thickening
 - (C) Presence of intrahepatic biliary dilatation
 - (D) Presence of intramural hypodense nodules within gallbladder wall
48. Ultrasound of a twin pregnancy at 20 weeks gestation reveals presence of a single placental mass. Which of the following statements is INCORRECT ?
- (A) The gestation has to be monochorionic and may be either di-amniotic or mono-amniotic
 - (B) If inter-twin membrane is seen, then monochorionic-mono-amniotic twins are ruled out
 - (C) If inter-twin membrane is not seen, the gestation may still be either mono-amniotic or di-amniotic
 - (D) The thickness of inter-twin membrane and 'twin peak sign' are useful to differentiate between mono-amniotic and di-amniotic gestations
49. True about cardiac rhabdomyomas are ALL EXCEPT :
- (A) They are the commonest fetal cardiac tumours
 - (B) They are associated with tuberous sclerosis in 50 to 80% cases
 - (C) Presence of multiple lesions excludes the diagnosis
 - (D) They often show spontaneous regression in the first few years of life
50. All of the following are gradient echo MR sequences EXCEPT :
- (A) HASTE
 - (B) FLASH
 - (C) DESS
 - (D) FIESTA

51. According to the AERB recommendation, what is the maximum dose limit of exposure to a pregnant woman (dose equivalent to the surface of the woman's abdomen for the remainder of her pregnancy) ?
- (A) 5 mSv
 - (B) 4 mSv
 - (C) 3 mSv
 - (D) 2 mSv
52. What is the percentage of neuroblastoma cases which show calcification on CT ?
- (A) 30%
 - (B) 50%
 - (C) 70%
 - (D) 90%
53. A 30 years old woman undergoes a CECT abdomen which reveals a 4 cm sized solid enhancing mass arising from upper pole of left kidney, which contains foci of fat density as well as nodular foci of calcification within it. What is the likely diagnosis ?
- (A) Angiomyolipoma
 - (B) Myelolipoma
 - (C) Renal cell carcinoma
 - (D) Pheochromocytoma
54. Which MR sequence is LEAST sensitive in detection of bone marrow pathology ?
- (A) T1 weighted spin echo
 - (B) T2 weighted fast spin echo with fat suppression
 - (C) T2 weighted gradient echo
 - (D) STIR
55. Who is known as the 'Father of Magnetic resonance imaging' ?
- (A) Paul Christian Lauterbur
 - (B) Sir Peter Mansfield
 - (C) Raymond Vahan Damadian
 - (D) Julio C. Palmaz
56. Elevated choline peak on MR spectroscopy may be seen in :
- (A) Meningioma
 - (B) Tuberculoma
 - (C) Both (A) and (B)
 - (D) Neither (A) nor (B)
57. Most typical type of MRI signal abnormalities in PRES (Posterior Reversible Encephalopathy Syndrome) are :
- (A) Hyperintensity on T2/FLAIR and restricted diffusion
 - (B) Hyperintensity on T2/FLAIR and no restricted of diffusion
 - (C) Hyperintensity on T1 and restricted diffusion
 - (D) Hyperintensity on T1 and no restricted diffusion

58. Geometric unsharpness can be reduced by :
- (A) Using a large FFD (Focus-Film Distance) and a small focal spot
 - (B) Using a small FFD and a small focal spot
 - (C) Using a large FFD and a large focal spot
 - (D) Using a small FFD and a large focal spot
59. The likelihood of a photoelectric interaction occurring increases in which of the following situations ?
- (A) Photons with high energy and absorbers with high atomic numbers
 - (B) Photons with high energy and absorbers with low atomic numbers
 - (C) Photons with low energy and absorbers with high atomic numbers
 - (D) Photons with low energy and absorbers with low atomic numbers
60. Which of the following MR findings on opposed phase imaging (in-phase and out-of-phase) and Diffusion weighted imaging most strongly suggests a malignant process as a cause of a solitary vertebral collapse ?
- (A) Drop in signal on out-of-phase images with no restriction of diffusion
 - (B) Drop in signal on out-of-phase images with restricted diffusion
 - (C) No drop in signal on out-of-phase images with restricted diffusion
 - (D) No drop in signal on out-of-phase images with no restriction of diffusion
61. Regarding sacral insufficiency fractures which one of the following is true ?
- (A) Sacral insufficiency fractures are always stable fractures
 - (B) Sacral insufficiency fractures can result from normal daily activity
 - (C) Sacral insufficiency fractures occur due to abnormal stress on normal bones
 - (D) Sacral insufficiency fractures are often associated with neurological deficits

62. Regarding an aberrant internal carotid artery which one of the following is INCORRECT ?
- (A) Commonly causes sensori-neural deafness
 - (B) The incidence is less than 0.5%
 - (C) Is a recognised cause of pulsatile tinnitus
 - (D) High resolution CT can be used to differentiate this from middle ear tumours
63. In MR spectroscopy myo-inositol is abnormally increased in patients with :
- (A) Meningioma
 - (B) Alzheimer's disease
 - (C) Hypoxic ischaemic injury
 - (D) All of the above
64. Bilaterally symmetrical adrenal enlargement with stippled calcification is seen in :
- (A) Addison's disease
 - (B) Tuberculosis
 - (C) Wolman's disease
 - (D) Pheochromocytoma
65. Regarding knee joint which one of the following is CORRECT ?
- (A) A tunnel view shows the patella well
 - (B) The medial femoral condyle projects more anteriorly compared to the lateral femoral condyle
 - (C) A fat fluid level in the suprapatellar bursa in a horizontal beam lateral radiograph indicates a fracture within the joint
 - (D) The popliteal vein lies deep to the popliteal artery
66. Regarding the portal venous system which is not true ?
- (A) The splenic and superior mesenteric vein join to form the main portal vein
 - (B) The extra hepatic portal vein lies anterior to the common bile duct
 - (C) The left portal vein supplies the caudate lobe
 - (D) The umbilical (distal) portion of the left portal vein supplies the lateral segments 2 and 3 and the inferior portion of segment 4

67. Regarding the renal tract which one of the following is INCORRECT ?
- (A) A high kV radiograph optimizes the detection of calcification
 - (B) Perirenal fat allows the renal outline to be seen on plain films
 - (C) The ureters are projected over the tips of the transverse processes of L2 to L5
 - (D) Prone views aid mid ureteric during an IVU
68. In mammography :
- (A) Fibroglandular tissue appears radiolucent compared with fat
 - (B) Normal ducts can usually be seen throughout the breast
 - (C) Normal intramammary lymph nodes are usually of calcific density
 - (D) The optimal examination should include the pectoralis major
69. Regarding myelination of brain which one of the following is true ?
- (A) The entire brainstem is myelinated at birth
 - (B) The posterior limb of the internal capsule myelinates before the anterior limb of the internal capsule
 - (C) The optic radiation myelinates after 12 months
 - (D) Genu of corpus callosum myelinates before the splenium
70. Regarding the internal auditory meatus which one of the following is correct ?
- (A) The anterior wall of the internal auditory canal is shorter than the posterior
 - (B) The crista falciformis divides the internal auditory meatus vertically into two compartments
 - (C) The lamina cribrosa is at the medial end of the internal auditory meatus
 - (D) The facial and vestibulo-cochlear nerves may form a single bundle as they cross the cerebellopontine angle cistern
71. Regarding salivary glands which one of the following is true ?
- (A) The parotid gland lies beneath the ramus of the mandible
 - (B) Stenson's duct runs deep to the masseter muscle
 - (C) The mylohyoid muscle divides the submandibular gland into superficial and deep portions
 - (D) The parotid gland typically has an attenuation similar to that of muscle on CT

72. Regarding periventricular leukomalacia in premature infants, which one of the following is TRUE ?

- (A) The regions of the corona radiata and trigone are the most common sites of involvement
- (B) It is a sequela of intraventricular hemorrhage
- (C) Sonography reliably distinguishes the hemorrhagic and nonhemorrhagic forms
- (D) Periventricular cysts are the earliest finding

73. Regarding the Chiari II malformation, which ONE of the following is true ?

- (A) It is nearly always associated with failure of neural tube closure
- (B) The tentorial attachment is usually normal
- (C) Supratentorial abnormalities are uncommon
- (D) The severity of hydrocephalus nearly always improves after repair of the meningocele

74. Which of the following would be considered abnormal in a first trimester pregnancy ?

- (A) A gestational sac < 10 mm without a fetal pole
- (B) A 3 mm embryo without a heartbeat
- (C) An embryo with a heart rate of 70 bpm
- (D) A 4 mm yolk sac

75. All of the following are changes of cirrhosis that may be seen in the liver on imaging except :

- (A) Nodular contour of the liver
- (B) Atrophy of the anterior segment of the right lobe and medial segment of the left with hypertrophy of the caudate lobe
- (C) Periportal space hypertrophy with fat deposition
- (D) Dilatation and beading of the biliary tree

76. Aberrant left pulmonary artery is seen between :

- (A) Trachea and Esophagus
- (B) Esophagus and Spine
- (C) Trachea and Aortic arch
- (D) Trachea and Sternum

77. Regarding dissection of aorta which one of the following is not correct ?
- (A) True lumen is usually flattened and compressed by the false lumen
 - (B) Dissection does not occur in aneurysms < 5 cm diameter
 - (C) Widening of mediastinum to > 8 cm can be due to haemorrhage or enlarging false lumen
 - (D) Transthoracic ultrasound easily detects Stanford type B dissection
78. In popliteal artery entrapment syndrome :
- (A) There is anomalous development and course of medial head of gastrocnemius muscle
 - (B) Popliteal artery winds laterally and then inferiorly to the tendinous insertion of lateral head of gastrocnemius muscle
 - (C) Common in middle aged women
 - (D) Doppler waveforms in the popliteal artery are accentuated during muscle contraction
79. The most common malignant of spleen is :
- (A) Metastasis
 - (B) Lymphoma
 - (C) Haemangiosarcoma
 - (D) Lymphangiosarcoma
80. Cholangiocarcinoma :
- (A) Is the most commonest primary hepatic tumor
 - (B) On CECT exhibits delayed contrast enhancement
 - (C) Appears as a hot lesion on sulfur colloid/IDA scan
 - (D) Usually has a central scar
81. Regarding serous cystadenoma of the pancreas which one of the following is not true ?
- (A) Any part of the pancreas may be affected with slight preponderance to the head
 - (B) On ultrasound it appears as a solid predominantly echogenic mass
 - (C) It is a hypovascular mass on angiogram
 - (D) The lesion can have a prominent central stellate scar

82. Linitis plastica type of stenosis in stomach can be due to all of the following except:
- (A) Metastatic carcinoma from breast
 - (B) Schirous gastric carcinoma
 - (C) Eosinophilic gastritis
 - (D) H. Pylori gastritis
83. Which one of the following is not true regarding peritoneal spaces ?
- (A) Right and left subphrenic spaces are separated by the falciform ligament
 - (B) Bare area of the liver is continuous with the right anterior pararenal space
 - (C) Phrenico colic ligament separates right subphrenic space from right paracolic gutter
 - (D) Gastrohepatic recess is located between left lobe of liver and stomach
84. Gastric omentum has _____ layers of peritoneum.
- (A) 1
 - (B) 2
 - (C) 3
 - (D) 4
85. Regarding intussusception in children which one of the following is not correct ?
- (A) Idiopathic in 95%
 - (B) Colocolic is the most commonest type
 - (C) Peak incidence is between six months and two years
 - (D) Meckels diverticulum can be a lead point
86. Double bubble sign is not a feature of:
- (A) Duodenal atresia
 - (B) Esophageal atresia
 - (C) Annular pancreas
 - (D) Midgut volvulus
87. Chondrocalcinosis is not seen in:
- (A) Pseudogout (CPPD)
 - (B) Wilsons disease
 - (C) Synovial chondromatosis
 - (D) Hypothyroidism
88. Skull suture metastasis can be seen in:
- (A) Wilms tumor
 - (B) Neuroblastoma
 - (C) Phaeochromocytoma
 - (D) Medulloblastoma

89. Eye of the tiger sign in MRI in Haverden spartz disease is due to :
- (A) Markedly hypointense globus pallidus on T2WI surrounding a higher intensity centre
 - (B) Markedly hyperintense globus pallidus on T2WI surrounding a higher intensity centre
 - (C) Markedly hypointense globus pallidus on T2WI surrounding a lower intensity centre
 - (D) Markedly hyperintense globus pallidus on T2WI surrounding a lower intensity centre
90. Wormian bones are not seen in :
- (A) Pyknodysostoses
 - (B) Sickle cell anemia
 - (C) Osteogenesis imperfecta
 - (D) Downs syndrome
91. One of the following is not a deterministic effect of ionising radiation :
- (A) Erythema
 - (B) Leukemia
 - (C) Cataract
 - (D) Prodromal syndrome
92. Absorbed Dose :
- (A) Is measured in sieverts (Sv)
 - (B) Is measured in gray (Gy)
 - (C) Is the amount of heat incident per unit mass to a medium by the incident ray
 - (D) Takes into account the difference in biological effects of different types of radiation
93. When compared to the earth's magnetic field, a clinical MRI scanner has a magnetic field that is :
- (A) Much higher
 - (B) Slightly higher
 - (C) About the same
 - (D) Lower
94. During quenching of the magnet, who should stay in the MRI scanner room ?
- (A) MR technician
 - (B) Radiologist
 - (C) MR engineer
 - (D) Nobody
95. Which of the following is the most common cause of a mixed cystic and solid ? Suprasellar mass seen on cranial MR scan of a 10 years old child.
- (A) Pituitary Adenoma
 - (B) Optic chiasmal glioma
 - (C) Germinoma
 - (D) Craniopharyngioma

96. Regarding Gout which one of the following is not correct ?
- (A) Involvement of axial skeleton is rare
 - (B) Joint space loss and periarticular osteopenia are commonly encountered
 - (C) Tophi typically intensely enhance following gadolinium
 - (D) On ultrasound, 'double contour sign' is highly suggestive of gouty arthritis
97. Which one of the following is true regarding Angiomyolipomas ?
- (A) Angiomyolipomas associated with tuberous sclerosis are more common than sporadic ones
 - (B) The most common complication is malignant transformation
 - (C) Females are more commonly affected than males
 - (D) Angiomyolipomas are not suitable for embolization
98. Avulsion fracture of anterior inferior iliac spine in pelvis is caused by injury to :
- (A) Iliopsoas
 - (B) Biceps femoris
 - (C) Rectus femoris
 - (D) Vastus medialis
99. Which one of the following is a stochastic effect of radiation ?
- (A) Breast cancer
 - (B) Infertility
 - (C) Skin ulceration
 - (D) Temporary loss of haemopoiesis
100. Which of the following is not a deterministic effects of ionising radiation ?
- (A) Erythema
 - (B) Leukaemia
 - (C) Cataracts
 - (D) Prodromal syndrome
101. Which one of the following is not seen in the suprasellar cistern ?
- (A) Circle of Willis
 - (B) Optic chiasma
 - (C) Cerebral peduncle
 - (D) Pituitary infundibulum
102. The optimal way to image the extent of descent of cerebellar tonsil in chiari malformation is :
- (A) Axial MRI
 - (B) Coronal MRI
 - (C) Sagittal MRI
 - (D) Oblique MRI

103. Signal to noise in MRI is increased with :
- (A) Reduced magnetic strength
 - (B) Small FOV
 - (C) Thick slice
 - (D) Small voxel volume
104. Concerning vein of Galen malformation in neonates, which ONE of the following is True ?
- (A) Most are fed by multiple arteries rather than a single artery
 - (B) A nidus is typical of this malformation
 - (C) It drains into the superior sagittal sinus
 - (D) Seizure is the most common clinical manifestation
105. The earliest sonographic finding seen in a normal pregnancy is :
- (A) Fluid in endometrial cavity
 - (B) The double decidual sac sign
 - (C) The yolk sac
 - (D) The intradecidual sac sign
106. Which is a potential cause of acetabular labral tear ?
- (A) Trauma
 - (B) Femoral-acetabular impingement
 - (C) Hip dysplasia
 - (D) All of the above
107. All of the following increase a woman's risk for endometrial hyperplasia and cancer EXCEPT which one ?
- (A) Obesity
 - (B) Tamoxifen exposure
 - (C) Multiparity
 - (D) Diabetes
108. Which one of the following is NOT associated with venous sinus thrombosis ?
- (A) Disseminated intravascular coagulation
 - (B) Cancer
 - (C) Oral contraceptives
 - (D) Sickle cell disease
109. Normal myelination in brain progress in the following pattern except :
- (A) Rostral to caudal
 - (B) Sensory to motor
 - (C) Dorsal to ventral
 - (D) Central to peripheral

110. Penguin sign on a sagittal T1WI of brain is :
- (A) Atrophy of midbrain with presevation of pons
 - (B) Atrphy of pons with preservation of midbrain
 - (C) Atrophy of medulla oblongata with preservation of pons
 - (D) Atrophy of midbrain and pons
111. While assessing the wrist for bone age determination the optimal technique is :
- (A) AP view of the dominant hand
 - (B) Nougards view of the dominant hand
 - (C) AP view of the non-dominant hand
 - (D) Oblique view of the non-dominant hand
112. Regarding the lower limb which one of the following statement is false ?
- (A) The patella is a sesamoid bone within the quadriceps tendon
 - (B) The febella is frequently found in the lateral head of gastrocnemius
 - (C) In a bipartite patella the supero-lateral part is separate to the rest of the patella
 - (D) The shaft of the femur ossifies at the 35th week of fetal life
113. SAR (SpecificAbsorption Rate) in MRI describes the potential of the patients heating due to application of :
- (A) Magnetic energy
 - (B) RF energy
 - (C) Gradient energy
 - (D) Cryogen energy
114. Picket Fence appearance of small intestine in barium examination is seen in :
- (A) Tuberculosis
 - (B) Crohn's disease
 - (C) Meckel's diverticulum
 - (D) Intramural hemorrhage
115. Central dot sign in CT abdomen is seen in :
- (A) Biliary atresia
 - (B) Choledochal cyst
 - (C) Caroli's disease
 - (D) Abscess
116. Snowman's heart in chest radiograph occurs in :
- (A) Supracardiac total anomalous pulmonary venous drainage
 - (B) Transposition of great arteries
 - (C) Patent ductus arteriosus
 - (D) Tricuspid atresia

117. Congenital pulmonary arteriovenous malformations are associated with :
- (A) Noonan's syndrome
 - (B) Holt oram syndrome
 - (C) Osler weber rendu
 - (D) Tuberous sclerosis
118. Cyanotic congenital heart disease with left ventricular type of apex is :
- (A) Tetralogy of fallot
 - (B) Ebstein's anomaly
 - (C) Tricuspid atresia
 - (D) Truncus arteriosus
119. Salt and pepper MRI appearance is a feature of :
- (A) Glomus jugulare tumour
 - (B) Meningioma
 - (C) Chordoma
 - (D) Neurofibroma
120. The most common congenital renal anomaly is :
- (A) Renal agenesis
 - (B) Horse shoe kidney
 - (C) Crossed fused ectopic kidney
 - (D) Multicystic dysplastic kidney
121. Motion artifacts in MR imaging mostly occur along :
- (A) Slice encoding direction
 - (B) Phase encoding direction
 - (C) Frequency encoding direction
 - (D) The main magnetic field
122. The commonest cause of cortical nephrocalcinosis is :
- (A) Medullary sponge kidney
 - (B) Renal tubular acidosis
 - (C) Chronic glomerulonephritis
 - (D) Hypercalcaemia
123. Holly leaf pattern in chest radiograph is seen in :
- (A) Byssinosis
 - (B) Occupational asthma
 - (C) Silicosis
 - (D) Asbestosis
124. Comet tail appearance in chest CT is typically seen in :
- (A) Pneumoconiosis
 - (B) Bronchial carcinoma
 - (C) Pulmonary hamartoma
 - (D) Round atelectasis
125. Carney's triad consists of all except :
- (A) Pulmonary chondroma
 - (B) Bronchogenic carcinoma
 - (C) Gastric leiomyosarcoma
 - (D) Paraganglioma

126. "Tip of iceberg" sign in pelvic ultrasound is seen in :

- (A) Cystadenoma of ovary
- (B) Ovarian metastasis
- (C) Ovarian dermoid
- (D) Endometrial carcinoma

127. Sitting duck appearance in chest X-ray is seen in :

- (A) Tetralogy of Fallot
- (B) Persistent truncus arteriosus
- (C) Transposition of great arteries
- (D) Atrial septal defect

128. The SI unit of absorbed dose of radiation is :

- (A) Rad
- (B) Roentgen
- (C) Gray
- (D) Curie

129. Osteochondritis of the tarsal navicular is :

- (A) Scheuermann's disease
- (B) Kohler's disease
- (C) Osgood's Schlatter's disease
- (D) Perthes disease

130. Snow storm appearance in pelvic ultrasound is seen in :

- (A) Hydatiform mole
- (B) Chorioangioma of placenta

- (C) Missed abortion
- (D) Choriocarcinoma

131. The radio isotope of choice for myocardial perfusion imaging is :

- (A) Indium 111 leucocytes
- (B) Thallium 201
- (C) Tc 99m HMPAO
- (D) Tc 99m labeled RBC

132. Bilaterally symmetrical adrenal enlargement with stippled calcification is seen in :

- (A) Addison's disease
- (B) Tuberculosis
- (C) Woolman's disease
- (D) Pheochromocytoma

133. A denser nephrogram in intravenous urography study can be obtained by :

- (A) Non ionic contrast
- (B) Meglumine based contrast
- (C) Dehydrating the patient
- (D) More rapid injection of given contrast volume

134. T1 and T2 hyperintensity of intracerebral hemorrhage in MRI is due to :

- (A) Intracellular meth hemoglobin
- (B) Extracellular meth hemoglobin
- (C) Intracellular deoxy hemoglobin
- (D) Extracellular deoxy hemoglobin

135. DURET hemorrhages and KERNOLAN's notch in MRI are typical of :
- (A) Ascending transtentorial herniation
 - (B) Subfalcine herniation
 - (C) Descending transtentorial herniation
 - (D) Tonsillar herniation
136. Microaneurysms resulting from internal elastic lamina necrosis are the diagnostic hallmark of :
- (A) Polyarteritis nodosa
 - (B) Systemic lupus nephritis
 - (C) Gummous arteritis
 - (D) Kawasaki disease
137. The most common mass in anterior third ventricle is :
- (A) Germinoma
 - (B) Subependymal giant cell astrocytoma
 - (C) Colloid cyst
 - (D) Astrocytoma
138. Tigroid pattern of perivascular myelin preservation in MRI brain is seen in :
- (A) Canavan disease
 - (B) Pelizaeus-Merzbacher disease
 - (C) Krabbe disease
 - (D) Adrenoleukodystrophy
139. Eye-of-the-Tiger sign in MRI brain is pathognomonic of :
- (A) Wilson disease
 - (B) Leigh disease
 - (C) Pantothenate-kinase associated neurodegeneration
 - (D) Huntington disease
140. The commonest valve affected in iv drug abusers is :
- (A) Mitral valve
 - (B) Tricuspid valve
 - (C) Aortic valve
 - (D) Pulmonary valve
141. Striated nephrogram in intravenous urography is seen in :
- (A) Pyelonephritis
 - (B) Malakoplakia
 - (C) Nephrocalcinosis
 - (D) Autosomal dominant polycystic kidney disease
142. The input fluorescent screen in present day image intensifiers is :
- (A) Cadmium sulfide
 - (B) Cesium iodide
 - (C) Calcium tungstate
 - (D) Silver bromide

143. Which one of the following artifacts is correctly paired with its modality ?

- (A) Ring down — CT
- (B) Streak — MRI
- (C) Aliasing — MRI
- (D) Partial-volume averaging — radiograph

144. What modality has the best native resolution ?

- (A) MRI
- (B) CT
- (C) Conventional radiography
- (D) Ultrasound

145. Cork screw oesophagus in Barium swallow is the characteristic of :

- (A) Achalasia cardia
- (B) Diffuse oesophageal spasm
- (C) Scleroderma
- (D) Oesophageal varices

146. Radiolucent renal calculus among the following is :

- (A) Cysteine stone
- (B) Uric acid stone
- (C) Struvite stone
- (D) Calcium oxalate stone

147. Which one of the following does not contribute to the cardiac border in a frontal view of chest radiograph ?

- (A) Aortic arch

- (B) Left ventricle
- (C) Right atrium
- (D) Right ventricle

148. The right ventricular outflow tract is best imaged in echo by :

- (A) Parasternal long axis
- (B) Parasternal short axis
- (C) Subcostal view
- (D) Trans oesophageal echo

149. Goblet sign in urography is seen in :

- (A) Transitional cell carcinoma of ureter
- (B) Transitional cell carcinoma of bladder
- (C) Renal cell carcinoma
- (D) Oncocytoma

150. Osteoid osteoma occurs in the following locations except :

- (A) Epiphyseal
- (B) Metaphyseal
- (C) Metadiaphyseal
- (D) Diaphyseal

151. The complications of Horse shoe kidney are the following except :

- (A) Pelviureteric junction obstruction
- (B) Renal calculi
- (C) Prone for injury
- (D) Reflux

152. Reversed — '3' impression on the esophagus in barium swallow is seen in :
- (A) Right sided aortic arch
 - (B) Aberrant right subclavian artery
 - (C) Coarctation of aorta
 - (D) Double aortic arch
153. The commonest benign hepatic mass is :
- (A) Hemangioma
 - (B) Focal nodular hyperplasia
 - (C) Hepatic adenoma
 - (D) Hepatoma
154. Cyst of the jaw related to the crown of an unerupted tooth is :
- (A) Radicular cyst
 - (B) Dentigerous cyst
 - (C) Odontogenic keratocyst
 - (D) Aneurysmal bone cyst
155. The occurrence of multiple hemangioblastomas in the retina and cerebellum is a characteristic feature of :
- (A) Ataxia-Telangiectasia
 - (B) Tuberous Sclerosis
 - (C) Von Hippel-Lindau Disease
 - (D) Neurofibromatosis Type 1
156. Osteoporosis circumscripta is the name given to the pattern of osteoporosis of the skull vault in :
- (A) Hyperparathyroidism
 - (B) Paget's disease
 - (C) Multiple myeloma
 - (D) Osteomalacia
157. The radiological features of Achondroplasia include all of the following except :
- (A) Rhizomelic shortening of bones
 - (B) 'Tombstone' like iliac blades
 - (C) Trident hand
 - (D) Acro-osteolysis
158. Onion-skin appearance of periosteal new bone formation is seen in :
- (A) Ewing's sarcoma
 - (B) Skeletal metastasis
 - (C) Chondrosarcoma
 - (D) Osteogenic sarcoma
159. Plethoric lung fields are seen in all of the following conditions except :
- (A) Truncus arteriosus
 - (B) Ventricular septal defect
 - (C) Total anomalous pulmonary venous drainage
 - (D) Tetralogy of Fallot

160. Bilateral symmetrical hilar and paratracheal lymphadenopathy are the characteristic chest radiographic findings of :
- (A) Sarcoidosis
 - (B) Asbestosis
 - (C) Hypersensitivity pneumonitis
 - (D) Tuberculosis
161. The SI unit of measurement of radioactivity is :
- (A) Gray
 - (B) Sieverts
 - (C) Becquerel
 - (D) Rad
162. Sabre-sheath trachea is a radiographic finding that is suggestive of :
- (A) Bronchiectasis
 - (B) Tracheal stenosis
 - (C) Chronic obstructive pulmonary disease
 - (D) Mounier-Kuhn syndrome
163. The imaging findings of bilateral vestibular schwannomas and multiple meningiomas are diagnostic of :
- (A) Bourneville's disease
 - (B) Neurofibromatosis Type 2
 - (C) Sturge-Weber Syndrome
 - (D) Epidermal Nevus Syndrome
164. The most sensitive chest radiographic view to detect minimal pleural effusion of only a few milliliters is :
- (A) Postero anterior view
 - (B) Lateral view
 - (C) Horizontal beam lateral decubitus view
 - (D) Supine angled antero posterior view
165. The non CNS lesions of Von Hippel Lindau Syndrome include all of the following except :
- (A) Renal cell carcinoma
 - (B) Pheochromocytoma
 - (C) Visceral cysts
 - (D) Adrenal myelolipomas
166. Post ductal coarctation of aorta is commonly associated with :
- (A) Patent Ductus arteriosus
 - (B) Situs inversus
 - (C) Bicuspid aortic valve
 - (D) Atrial Septal Defect
167. Bone infarct can mimic one of the following in radiographs :
- (A) Chondroma
 - (B) Chondromyxoid fibroma
 - (C) Aneurysmal bone cyst
 - (D) Bone island

168. Earliest evidence of osteomyelitis is given by :

- (A) Plain radiograph
- (B) Computed tomography
- (C) MRI
- (D) Ultrasound

169. Double bubble appearance in supine abdominal radiograph is seen in :

- (A) Duodenal atresia
- (B) Jejunal atresia
- (C) Meconium ileus
- (D) Hirschsprungs disease

170. Trilateral retinoblastoma is :

- (A) Retinoblastoma with intracranial extension
- (B) Bilateral ocular tumors plus pineal PNET
- (C) Bilateral multifocal retinoblastoma of germ line origin
- (D) Retinoblastoma with optic canal infiltration

171. One Tesla equals to :

- (A) 1 Gauss
- (B) 100 Gauss
- (C) 1,000 Gauss
- (D) 10,000 Gauss

172. Interstitial lung disease to have increased lung volume is :

- (A) Lymphangiomyomatosis
- (B) Idiopathic pulmonary fibrosis

(C) Sarcoidosis

(D) All of the above

173. Aortic nipple is formed by :

- (A) Right superior intercostal vein
- (B) Left superior intercostal vein
- (C) Right subclavian artery
- (D) Left subclavian artery

174. How many millimeters is one French ?

- (A) 3 mm
- (B) 1 mm
- (C) 0.5 mm
- (D) 0.33 mm

175. Predilection for frontal white matter is a feature of :

- (A) Alexander disease
- (B) Canavan disease
- (C) Metachromatic leukodystrophy
- (D) X linked adreno leukodystrophy

176. The radiograph of a 5 years old boy shows loss of height of the femoral head, with fragmentation and sclerosis of the epiphysis. What is the most likely diagnosis ?

- (A) Perthes disease
- (B) Slipped upper femoral epiphysis
- (C) Transient synovitis of the hip
- (D) Septic arthritis

177. Barium swallow done on a 20 years old man shows smooth narrowing of the distal esophagus with barium intermittently spurting into the stomach. What is the most likely diagnosis ?

- (A) Esophageal achalasia
- (B) Esophageal carcinoma
- (C) Esophageal hernia
- (D) Diffuse esophageal spasm

178. A well defined 2×2 cm hyperechoic lesion is seen in the right lobe of the liver of a 42 years old man. On doing CECT, the lesion shows centripetal enhancement. What is the most likely diagnosis ?

- (A) Haemangioma
- (B) Focal nodular hyperplasia
- (C) Fibrolamellar carcinoma
- (D) Hepatic adenoma

179. Which of the following shows a T2 hyperintense central scar in MRI ?

- (A) Hepatic adenoma
- (B) Focal nodular hyperplasia
- (C) Fibrolamellar carcinoma
- (D) Haemangioma

180. A 35 years old woman undergoes a pelvic MRI. A 4 cm mass is seen in the left ovary that is hypointense in T1 and T2. What is the most likely diagnosis ?

- (A) Ovarian fibroma
- (B) Choriocarcinoma
- (C) Dysgerminoma
- (D) None of the above

181. Characteristic feature of a malignant breast mass on mammography is :

- (A) Coarse calcification
- (B) Spiculated margin
- (C) Egg shell calcification
- (D) Central lucent focus

182. A 57 years old woman complains of pulsatile tinnitus in the left ear. She also complains of dizziness and on examination she has hearing loss in the left ear. MRI shows a mass in the left jugular fossa which is of high signal intensity in T2 weighted images and contains several low signal areas. There is marked enhancement postcontrast. What is the most likely diagnosis ?

- (A) Meningioma
- (B) Metastasis
- (C) Glomus jugulare
- (D) Cholesteatoma

183. Brain CT scan of a patient who had suffered a road traffic accident shows multiple small hyperdense lesions at the grey white matter interface and in both basal ganglia. MRI a month later shows low signal foci on T2 weighted images at the grey white matter interface and basal ganglia. What is the most likely diagnosis ?
- Extensive subarachnoid hemorrhage
 - Venous infarction
 - Diffuse axonal injury
 - Hypoxic cerebral injury
184. Expansile lytic bone metastases are seen in :
- Breast carcinoma
 - Prostate carcinoma
 - Renal cell carcinoma
 - Adenocarcinoma of lung
185. Which of the following is most likely to cause inferior rib notching ?
- Neurofibromatosis type 1
 - SLE
 - Scleroderma
 - Rheumatoid arthritis
186. Which of the following radionuclides is used to identify ectopic gastric mucosa ?
- ^{99m}Tc -pertechnetate
 - ^{99m}Tc -sulphur colloid
 - ^{99m}Tc -labelled red blood cells
 - ^{99m}Tc -albumin macro-aggregates
187. The most common type of Atrial septal defect is :
- Ostium secundum defect
 - Ostium primum defect
 - Sinus venosus defect
 - Persistent atrioventricular canal
188. 'Bird of prey' sign is seen in the barium enema examination of :
- Gastric volvulus
 - Intussusception
 - Sigmoid volvulus
 - Caecal volvulus
189. The most common primary tumour of the heart is :
- Fibroma
 - Myxoma
 - Rhabdomyoma
 - Sarcoma
190. The most common cause of occult bleeding in the colon is :
- Solitary rectal ulcer
 - Angiodysplasia
 - Ulcerative colitis
 - Carcinoma colon
191. Repetitive stress in normal bones result in :
- Insufficiency fracture
 - Pathological fracture
 - Fatigue fracture
 - Pseudo-fracture

192. Hill-Sachs fracture and Bankart lesion are associated with :
- (A) Anterior dislocation of shoulder
 - (B) Posterior dislocation of shoulder
 - (C) Inferior dislocation of shoulder
 - (D) Pseudo-dislocation of shoulder
193. Which of the following support a diagnosis of slipped upper femoral epiphysis ?
- (A) Disruption of Klein's line
 - (B) Increased epiphyseal height
 - (C) Fragmentation of femoral epiphysis
 - (D) Radiolucent subchondral fracture
194. All are hypervascular metastasis in liver except :
- (A) Neuroendocrine tumour
 - (B) Carcinoid
 - (C) Renal cell carcinoma
 - (D) Mucinous carcinoma of colon
195. Accordion sign in CT abdomen is specific for diagnosis of :
- (A) Appendicitis
 - (B) Pseudomembranous colitis
 - (C) Cytomegalovirus colitis
 - (D) Typhlitis
196. Absent zygomatic arch is associated with :
- (A) Pierre robin syndrome
 - (B) Treacher collin syndrome
 - (C) Chron's syndrome
 - (D) Crouzan's disease
197. Vessels commonly involved in Takayasu's Arteritis **except** :
- (A) Vertebral artery
 - (B) Left Subclavian artery
 - (C) Brachiocephalic trunk
 - (D) Renal artery
198. "Feeding vessel sign" is seen in all **except** :
- (A) Wegener's granulomatosis
 - (B) Septic emboli
 - (C) Rheumatoid arthritis
 - (D) Lymphomatoid granulomatosis
199. The most common association of rounded atelectasis is :
- (A) Silicosis
 - (B) Sarcoidosis
 - (C) Asbestosis
 - (D) Bronchogenic carcinoma
200. Syndromes associated with a narrow spinal canal are :
- (A) Pseudohypoparathyroidism
 - (B) Achondroplasia
 - (C) Hypochondroplasia
 - (D) All of the above

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