# OPSC
# Asst. Prof.
## Previous Year Paper
## (Radio Diagnosis)
## 17 Nov, 2024

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

**T.B.C. : APB-16-23/24**

**Sl. No.** 2353

**Test Booklet Series**

# TEST BOOKLET

## ASSISTANT PROFESSOR (BROAD SPECIALTY) (RADIO-DIAGNOSIS)

**A**

**K-16**

**Time Allowed : 3 Hrs.** | **Maximum Marks : 200**

## INSTRUCTIONS TO CANDIDATES

1. IMMEDIATELY AFTER 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 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 along side. **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 ***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 shall be negative marking for wrong answers. For each wrong answer, 0.25 marks shall be deducted from the marks awarded for correct 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 instructions sent to you with your **Admission Certificate**.
9. After you have completed filling in all your responses 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.

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

1. Cathode in a X- Ray tube is made up of Tungsten element. Which of the following best describes the characteristic for choosing this?
   (A) Ability to vaporize easily
   (B) Short life expectancy
   (C) High melting point
   (D) Difficult to draw into wires that are strong

2. During the process of thermionic emission electron cloud formed in front of the cathode filament is known by the name of:
   (A) Thomson's effect
   (B) Edison effect
   (C) Roentgen effect
   (D) Space charge effect

3. Glass envelope of X Ray Tube contains the following gas:
   (A) Helium
   (B) Nitrogen
   (C) Oxygen
   (D) None

4. Anode stem of rotating X Ray tube is made up of:
   (A) Tungsten
   (B) Nickel
   (C) Molybdenum
   (D) Silver

5. Heel Effect is used in imaging the following:
   (A) DEXA scan
   (B) Mammogram
   (C) Computed Tomography
   (D) Ultrasonography

6. Characteristic Radiations are produced due to:
   (A) Collision of electrons with nucleus
   (B) Collision of slow speed electrons with nucleus
   (C) Collision of high speed electrons with shell
   (D) Collision of high speed protons with shell

7. Auger electron is produced during the following:
   (A) Characteristic radiation
   (B) Bremsstrahlung radiation
   (C) General radiation
   (D) Braking radiation

8. Interaction of X Rays with matter used in diagnostic radiology produces the following effect:
   (A) Pair production
   (B) Photon degradation
   (C) Compton scatter
   (D) Characteristic effect

9. Photoelectric effect is produced as a result of:
   (A) Interaction of high energy photon with bound electrons
   (B) Interaction of low energy photon with bound electrons
   (C) Interaction of high energy photon with free electrons
   (D) Interaction of low energy photon with free electrons

10. Compton effect is dependent on:
   (A) Atomic number
   (B) Total number of electrons
   (C) Energy of incident photon
   (D) Atomic mass

11. Which of the following is not a component of computed radiography?
(A) Torage phosphor reader
(B) Bar code scanner
(C) Workstation
(D) X-Ray tube

12. Material used in direct flat panel detector is:
(A) Amorphous silicone
(B) Amorphous selenium
(C) Amorphous phosphor
(D) Crystallized silicone

13. In a radiograph, spatial resolution and contrast resolution is higher with which of the followings respectively?
(A) Simple film system, simple film system
(B) Simple film system, digital radiography
(C) Digital radiography, Simple film system
(D) Digital radiography, digital radiography

14. Mammography is used from imaging the breasts. Which of the following best describes the use of compression paddle during the procedure?
(A) Increases tissue thickness and therefore improving contrast
(B) Increases the scatter radiation
(C) Geometric blurring of unnecessary anatomical structures is better
(D) Spread out the superimposed anatomical structures

15. Specular reflection in Ultrasonography is produced by which of the following anatomical structure?
(A) Liver
(B) Gallbladder
(C) Urinary bladder
(D) Diaphragm

16. During the performance of a Doppler sonography of lower limb artery a resident used the Doppler angle of 90 degrees. Which of the following best describes the use of Doppler angle?
(A) Doppler angle should always be 90 degree as it is a sine function
(B) Doppler angle should never be 90 degree as it is a sine function
(C) Doppler angle should never be 90 degrees as it is a cosine function
(D) Ideal Doppler angle should be more than 60 degree as it is a cosine function

17. Power Doppler is used for detection of slow flow. Which of the following is not true about power Doppler?
(A) Signal is not color coded
(B) Velocity information is available in color coded box
(C) Direction of flow of blood is not seen
(D) Uses changes in Doppler frequency shift to produce signals

18. SI unit of effective radiation is:
(A) Sievert
(B) Rad
(C) Gray
(D) Joule

19. Which of the following is not the principles of radiation protection?
(A) Justification
(B) Optimization
(C) Dose limitation
(D) Malfeasance

20. TLD badges are used for quantification of radiation exposure. It is based on thermo luminescence which is described as:
(A) Emission of radiation on exposure to light
(B) Emission of radiation on exposure to electric current
(C) Emission of radiation on exposure to temperature
(D) Emission of radiation on exposure to cold

21. Helical CT is based on:
(A) Slip ring technology
(B) Split ring technology
(C) Step up technology
(D) Sling ring technology

22. In a multidetector CT if there are 64 detectors and gantry rotation time is 0.4 seconds, then how many slices will be acquired in 0.5 seconds?
(A) 160
(B) 80
(C) 40
(D) 20

23. T2 relaxation time in MRI is described as:
(A) Gain of Mz component to 37 %
(B) Loss of My component to 37 %
(C) Gain of Mz to 63%
(D) Gain of My to 63%

24. Which of the following sequences uses the Chemical Shift Imaging?
(A) VIBE
(B) HASTE
(C) DIXON
(D) MRCP

25. Candy cane view is used in MRI of which of the following anatomical structures?
(A) Spinal cord
(B) Thoracic duct
(C) Venography
(D) Aortography

26. Which of the following sequence is not an example of sensitivity of encoding sequence?
(A) ASSET
(B) mSENSE
(C) SENSE
(D) aSENSE

27. Diffusion weighted imaging is commonly based on which sequence?
(A) FLAIR
(B) Echo planar imaging
(C) Parallel imaging
(D) Sensitivity encoding sequence

28. Wrap around artifact can be reduced by using:
(A) Smaller FOV
(B) Larger FOV
(C) Avoiding use of saturation bands
(D) Keeping phase encoding and frequency encoding direction unchanged

29. Zipper artifact occurs as a result of:
(A) Interference of external RF pulse
(B) Closely shutting the MR door
(C) Spike in noise of raw data
(D) Overlapping of slices

30. All of the followings are benefits of structured reporting except:
(A) Increased quality of reporting
(B) Easy to learn
(C) Reduced grammatical errors
(D) Better clarity

31. Synthetic MRI is best described by:
(A) Reconstruction of basic MRI sequences from the base images which are acquired
(B) Based only on T1/T2 relaxation time
(C) Qualitative assessment of relaxivity constants
(D) Qualitative assessment of proton density

32. A 35 year old male with history of migraines was referred for a brain MRI. Multiple white matter lesions were seen involving the temporal lobe. The MR angiogram was normal. Sparing of white matter in which area is classic for the underlying disease?
(A) Frontal lobe
(B) Parietal lobe
(C) Occipital lobe
(D) Insular cortex

33. The part of corpus callosum to develop first.
(A) Rostrum
(B) Genu
(C) Body
(D) Splenium

34. Molar tooth sign is seen in which of the following?
(A) Joubert syndrome
(B) Arnold Chiari type 1
(C) Dandy Walker syndrome
(D) Pontine tegmental cap dysplasia

35. All are associated with Joubert syndrome except:
(A) Lack of decussation of inferior cerebellar peduncular fibres
(B) Lack of decussation of superior cerebellar peduncular fibres
(C) Multicystic dysplastic kidneys
(D) Retinal dysplasia

36. A chronic alcoholic was admitted to the ER with Na+ level of 100 mEq/L. A medical student corrected his sodium to 140 mEq/L in 4 hours. The patient came back 3 days later to the ER with confusion, pseudobulbar palsy and quadriparesis. Which of the following is the earliest change expected on MRI?
(A) Foci of susceptibility changes in pons
(B) T2/FLAIR hyperintensities in pons
(C) Diffusion restriction in pons
(D) Contrast enhancement in the affected region of pons

37. A child with gelastic seizures and precocious puberty was referred for a brain MRI. What is the expected finding?
(A) Pituitary adenoma
(B) Glioma
(C) Teratoma
(D) Tubercinerium hamartoma

38. The artery of Percheron arises from _____ and supplies _____ .
(A) Bilateral PCA, Unilateral thalamus
(B) Unilateral PCA, bilateral thalami+ midbrain
(C) Bilateral PCA, bilateral thalami
(D) Unilateral PCA, unilateral thalamus + midbrain

39. A middle aged patient with sensorineural hearing loss underwent a brain MRI. It revealed a parietal lobe AVM with a dilated venous sac and multiple arterial aneurysms. What could be the most likely underlying cause for the sensorineural hearing loss?
(A) Parietal lobe AVM
(B) Superficial siderosis
(C) Bacterial meningitis in childhood
(D) Enlarged vestibular aqueduct

40. A young patient had asymmetrical enlargement of facial bones with ground glass matrix on CT. Physical examination revealed café au lait spots. Most likely diagnosis.
(A) Mazabraud syndrome
(B) Jaffe Campanacci syndrome
(C) McCune Albright syndrome
(D) Maffucci syndrome

41. A young patient had enlargement of limb bones with ground glass matrix on CT. MRI of limbs revealed multiple intramuscular myxomas. Most likely diagnosis.
(A) Mazabraud syndrome
(B) Jaffe Campanacci syndrome
(C) McCune Albright syndrome
(D) Maffuci syndrome

42. A young patient has multiple non ossifying fibromas. Physical examination revealed café au lait spots. Most likely diagnosis.
(A) Mazabraud syndrome
(B) Jaffe Campanacci syndrome
(C) McCune Albright syndrome
(D) Olliers disease

43. Neurofibromatosis - 2 is not associated with
(A) Neurofibroma
(B) Meningiomas
(C) Schwannomas
(D) Ependymomas

44. Which of the following is associated with neurofibromatosis-1?
(A) Bilateral vestibular schwannomas
(B) Lateral thoracic meningocele
(C) Giant cell lesions of mandible
(D) Cardiac rhabdomyomas

45. Optic nerve gliomas in NF-1 patients are typically _____.
(A) Higher grade than sporadic ones
(B) Lower grade than sporadic ones
(C) Similar prognosis as sporadic ones
(D) NF-1 patients don't get optic nerve gliomas

46. Most reliable way to distinguish subependymal giant cell astrocytoma from subependymal tubers.

(A) Presence of calcification

(B) Presence of hemorrhage

(C) Presence of diffusion restriction

(D) Interval increase in size

47. A patient with falx calcifications and multiple odontogenic keratocysts has an incidentally detected ovarian lesion. On MRI, the lesion measures 4×6×8 cm is dark on T2 as well as DWI. What is the most likely ORADS-MRI category?

(A) Orads 2

(B) Orads 3

(C) Orads4

(D) Orads 5

48. A patient underwent an MRI for nasal stuffiness. It revealed a mass arising from lateral wall of the nose in association with the middle turbinate. On post contrast sequences, it showed cerebriform pattern of enhancement. The patient underwent adequate resection. However the tumor recurred. The patient underwent multiple cycles of resection followed by recurrence. What is the most likely diagnosis?

(A) Squamous cell carcinoma

(B) Schneiderian carcinoma

(C) Sinonasal undifferentiated carcinoma

(D) Esthesio neuroblastoma

49. A patient has positive Tullio phenomenon (noise induced vertigo). Which radiological investigation would you like to order to confirm the diagnosis?

(A) MRI of base of skull(with CISS sequences)

(B) HRCT temporal bone

(C) NCCT head

(D) CEMRI brain

50. How many branches does the external carotid artery give?

(A) 7

(B) 8

(C) 9

(D) 10

51. How many branches does the cervical ICA give?

(A) 0

(B) 1

(C) 2

(D) 3

52. A 40 year female presents with bilateral conductive hearing loss. Which is the most common location for the disease?

(A) Fistula ante fenestrum

(B) Otic capsule

(C) Posterior margin of oval window

(D) Round window

53. A patient presented with multiple hemangioblastomas (cerebellar +spinal). Patient has right sided sensorineural hearing loss as well. Most likely diagnosis.

(A) Von Hippel Lindau syndrome

(B) Gorlin syndrome

(C) Cowden syndrome

(D) Tuberous sclerosis

54. Triangle of Mollaret consists of

(A) Ipsilateral Red nucleus, ipsilateral inferior olivary nucleus,contralateral dentate nucleus

(B) Ipsilateral Red nucleus, ipsilateral inferior olivary nucleus, ipsilateral dentate nucleus

(C) Ipsilateral Red nucleus, ipsilateral superior olivary nucleus, contralateral dentate nucleus

(D) Ipsilateral Red nucleus, ipsilateral superior olivary nucleus, ipsilateral dentate nucleus

55. A patient had recurrent attacks of syncope. On evaluation CT angio revealed, normal cerebral vasculature. However vertebral artery doppler showed mid systolic deceleration with diastolic reversal of flow. What is the ipsilateral upper limb angiography expected to reveal?

(A) Stenosis of 1st part of subclavian A

(B) Stenosis of 2nd part of subclavian A

(C) Stenosis of 3rd part of subclavian A

(D) Stenosis of axillary artery

56. A patient with SAH underwent DSA. It revealed a blister aneurysm in right M1 MCA. What is the best available treatment option for this patient?

(A) Surgical clipping

(B) MCA stenting

(C) Flow diversion

(D) Intrasaccular devices

57. In Onyx 18, the 18 stands for

(A) EvOH concentration

(B) DMSO concentration

(C) Viscosity

(D) Time for polymerisation

58. A patient presented with SAH. CT angio revealed 3 aneurysms, 1 in right MCA and 2 in left MCA. Which investigation will help you determine which aneurysm to treat on priority?

(A) CEMRI with black blood imaging

(B) CEMRI with white blood imaging

(C) CEMRI with GRE sequences

(D) DSA

59. A patient with pulsatile tinnitus underwent radiological investigations. A persistent embryonic connection was found to be the cause of tinnitus. What is the expected additional finding?

(A) Absent foramen ovale

(B) Absent foramen rotundum

(C) Absent foramen spinosum

(D) Absent foramen lacerum

60. Which structure does not pass through foramen ovale?
(A) Emissary vein
(B) Mandibular division of trigeminal nerve
(C) Lesser petrosal nerve
(D) Middle meningeal artery

61. All of the following structures pass through the cavernous sinus except.
(A) CN II
(B) CN III
(C) CN IV
(D) CN VI

62. 45 year, male presented with acute abdominal pain, pyrexia, inflammatory markers were raised. Surgical team suspected perforation. CT showed inflammatory change in the anterior pararenal space. Which of the following is least likely to be the underlying cause for the CT finding?
(A) Acute pancreatitis
(B) Diverticulitis of descending colon
(C) Duodenal perforation
(D) Gastric ulcer perforation

63. 40 year, male, presented with a lump in the right groin 2 months after a laparoscopic inguinal hernia repair. USG shows well-defined homogenous, hyperechoic, a vascular soft tissue mass lateral to inferior epigastric vessels in Rt. groin, no change on pressure/Valsalva. Most likely diagnosis.
(A) Recurrent indirect inguinal hernia
(B) Recurrent direct inguinal hernia
(C) Lipoma
(D) Lymph node

64. Middle aged female, with a history of laparotomy for endometrial CA, presented with a palpable hard lump in the abdominal wall. CT: soft tissue mass with ill-defined margins in the rectus muscle showing mild contrast enhancement. MRI: low on T1&T2WI. What is the most likely diagnosis?
(A) Metastasis
(B) Hematoma
(C) Desmoid
(D) Organised collection

65. 6 year, girl child, presented with gradually increasing abdominal mass crossing the midline. X Ray suggestive of soft tissue mass displacing bowel loops, with small calcifications. USG showed a 10 cm, thin walled, cystic lesion in mid abdomen crossing the midline, with multiple internal septations and small internal echoes. No internal enhancing nodule. The most likely diagnosis is
(A) Enteric duplication cyst
(B) Neuroblastoma
(C) Mesenteric cyst
(D) Ovarian cyst

66. Elderly female patient, presented with intermittent abdominal pain. CT: ill-defined soft tissue mass bowel mesentery, extensive calcification, Strands of soft tissue are seen radiating into the surrounding fatty mesentery, adjacent bowel loops show retraction. MRI: low on T1&T2WI. Most likely.
(A) Carcinoid
(B) Fibrosing mesenteric
(C) Mesenteric panniculitis
(D) Tuberculosis

67. A young female, with a history of previous abdominal surgery, presented with bloating and increasing abdominal distension, no other symptom. Plain XR; normal. USG: moderate amount of ascites. CECT: gross ascites with a mean density of 45 HU. Appendix is normal. What is most likely to have caused the ascites?

(A) Budd chiari syndrome
(B) Meigh's syndrome
(C) Thoracic duct disruption
(D) Ovarian tumour

68. 27yr, male, history of RTA; GCS 15 but is haemodynamically unstable, abdominal bruising. FAST (focused assessment with sonography in trauma) scan in resuscitation; no evidence of free fluid. What is the approximate minimal detectable fluid vol by FAST scanning?

(A) 50 ml
(B) 100 ml
(C) 200 ml
(D) 500 ml

69. 50 year, female, presented with acute abdominal pain, point tenderness over an area in RIF. CT: well-defined triangular area of high-attenuation fat density anteriorly in the lower right abdomen. The large and small bowel are normal. Which one of the following is most likely?

(A) Segmental omental infarction
(B) Rectus hematoma
(C) Epiploic appendagitis
(D) Mesenteric vein thrombosis

70. Which of the following is not a subtype of HCC according to the 2019 WHO classification?

(A) Steatohepatitic type
(B) Clear cell type
(C) Macro trabecular massive type
(D) Sarcomatous type

71. A young male, with a history of blunt injury to abdomen following RTA. A poly trauma CT scan does not demonstrate any intra-abdominal injuries, but there are features indicating retroperitoneal injuries. Regarding these features, which of the following is true?

(A) Retroperitoneal air may indicate pulmonary injuries
(B) Hematomas in the posterior pararenal space do not extend into pelvis
(C) Most common region for retroperitoneal haemorrhage after trauma: around aorto-caval region in midline
(D) Low density fluid in retroperitoneum indicate injury to pelvicalyceal system

72. With regards to the anatomy of the retroperitoneum, which of the following statements is true?

(A) The left perirenal space communicates with the scrotum
(B) The right perirenal space communicates with bare area of liver
(C) The adrenal glands are in the anterior pararenal space
(D) The posterior pararenal space contains the ascending and descending colon

73. An elderly male, presented with severe abdominal pain and was admitted under the surgical team with suspected perforation. He was too unwell to undergo an erect chest radiograph. What would have been the most appropriate alternative plain film to detect the presence of free intra peritoneal gas?
(A) Supine chest
(B) Supine abdomen
(C) Right lateral decubitus abdomen
(D) Left lateral decubitus abdomen

74. Which of the following favours gastric lymphoma rather than other gastric malignancies?
(A) Luminal narrowing
(B) Preservation of surrounding fat planes
(C) Single site of mural thickening
(D) Involvement of proximal half of stomach

75. Which tumour has a strong association with celiac disease?
(A) Adenocarcinoma
(B) Carcinoid
(C) B cell lymphoma
(D) EATL

76. Young female in the post-partum period, induced delivery for pre-eclampsia with severe RUQ pain, oedema & nausea. CT: copious ascites & multiple wedge-shaped areas of liver non-enhancement consistent with hepatic infarction. Most likely underlying cause.
(A) Hepatic artery thrombosis
(B) Portal vein thrombosis
(C) Acute budd chiari syndrome
(D) HELLP syndrome

77. Middle-aged male, known case of acute leukaemia. Abdominal USG: Several small, uniformly hypoechoic nodules in liver: foci of hepatic candidiasis & resolved following empirical treatment with antifungal drugs. What route most likely fungal infections take to liver?
(A) Biliary ducts
(B) Portal vein
(C) Hepatic artery
(D) Trans coelomic

78. Which of the following is not an expected normal finding following liver transplant?
(A) Increased periportal attenuation
(B) Perihepatic fluid
(C) Persistent fissure for ligamentum teres
(D) Hepatic artery resistive index < 0.5

79. A 55-year-old man with a previous history of liver transplantation presented with a 1-week history of abdominal pain and distension. An abdominal X Ray showed some distended small bowel loops centrally within the abdomen. You were asked to, perform a CT scan of abdomen for further evaluation. This showed a cluster of non-encapsulated dilated small bowel loops adjacent to the anterior abdominal wall on the right side with adjacent crowded mesenteric vessels. What is most probable diagnosis?
(A) Right Para duodenal hernia
(B) Small bowel adhesions
(C) Foramen of Winslow hernia
(D) Trans mesenteric hernia

**80.** A 35-year-old female with a history of flushing, pruritis, and diarrhoea was referred for a small bowel series. A barium study demonstrated irregular diffuse thickening of small bowel folds. There was also diffuse osteosclerosis. Laboratory tests revealed elevated serum tryptase level. What is the likely diagnosis?

(A) Mastocytosis

(B) Amyloidosis

(C) Scleroderma

(D) Waldenstorm's macroglobulinemia

**81.** A young male presented with signs; symptoms & preliminary investigations suggestive of a Meckel's diverticulum. Tc-99m pertechnetate study was positive, however no Meckel's diverticulum was seen intraoperatively. Other than observer error, what explains the falsely positive Tc-99m pertechnetate study?

(A) Ileal malrotation

(B) Intussusception

(C) Rapid bowel transit

(D) Perforated Meckel's diverticulum

**82.** Regarding RFA treatment of HCC, which of the following statements is most true pertaining to tumour seeding via the needle track?

(A) Lesions with a subcapsular location are at a lower risk

(B) Mortality ranges ~1.5- 2 %

(C) Rate of major complications ~5-10 %

(D) Risk of tumor seeding ~0.5 %

**83.** Consider the following statements about Abernathy malformation

1. Type 1 malformation are seen predominantly in females
2. Type 2 malformations are seen predominantly in females
3. Type 1 is end to side anastomosis
4. Type 2 is side to side anastomosis
5. Abernathy malformations are associated with focal nodular hyperplasia
6. Pulmonary AVM/AVF are not seen

Choose the most appropriate combination of the correct statements:

(A) 1,3,4,6

(B) 2,3,4,5

(C) 1,3,4,5

(D) 1,3,4,5

**84.** Which of the following pancreatic neoplasms are associated with fibrous dysplasia?

(A) Serous cystic neoplasm

(B) Mucinous cystic neoplasm

(C) Intraductal papillary mucinous neoplasm

(D) Solid pseudo papillary tumours of pancreas

**85.** A patient with liver disease was referred for US assessment of their TIPS stent which had been in situ for 3 months. Which of the following doppler parameter of portal vein are not suggestive of stent stenosis?

(A) PSV > 190 cm/sec at a stenotic segment

(B) PSV of 120 cm/sec in non-stenotic segment

(C) PSV of 20 cm/s in the present portal vein

(D) Colour aliasing at the site of stenosis

**86.** A young male presented with painless progressive scrotal swelling, O/E- the swelling was described as a bag of worms, USG showed multiple dilated tortuous vascular channels. CECT abdomen was suggestive of a vascular compression syndrome leading to scrotal varicocele. Please read the statements below about the syndrome in question.

1. Can have anterior or posterior subtypes based on the location of compression
2. Right renal vein stenosis is seen
3. Left renal vein stenosis is seen
4. Aorta-SMA angle is reduced
5. Aorta-SMA angle is increased
6. Early enhancement of gonadal vein is a feature

Which of the following combinations of statements are most appropriate?

(A) 1,2,4,6
(B) 1,3,4,6
(C) 1,3,5,6
(D) 1,3,4,6

**87.** What is true for LIRADS v2108?

(A) No age limit is defined in LIRADS lexicon for its application
(B) Unequivocal enhancing soft tissue in vein, regardless of visualization of parenchymal mass is LR-TIV
(C) Peripheral arterial phase enhancement and washout are the core features
(D) Threshold growth is defined as ≥ 50% growth in size within 3 months interval

**88.** Highly vascular, T2 hyperintense liver mass was seen in an 8 month old baby. On angiography, there was decrease aorta caliber below the celiac axis. Most likely diagnosis is

(A) Hepatoblastoma
(B) Infantile hepatic haemangioma
(C) Undifferentiated embryonal sarcoma
(D) Mesenchymal hamartoma

**89.** Abdominal CT scan of a young patient showed: Pancreas without a tail. Which is not the likely associated with this condition?

(A) Diabetes mellitus
(B) Polysplenia
(C) Right Isomerism
(D) Malformed part of dorsal mesentery

**90.** 16 yr female, history of RTA, several previous admissions for undiagnosed acute abdominal pain, father died at aged 36 by pancreatic CA. CT: sternal &femur fracture, lung contusions, several large spherical calcifications pancreas & 4cm pseudocyst, relatively good gland volume. Which is the most likely diagnosis?

(A) Trauma
(B) Pancreatic division
(C) Hereditary pancreatitis
(D) Cystic fibrosis

**91.** How is the malignant potential of a gastrointestinal stromal tumour (GIST) determined?

(A) Age of the patient, tumour size, mitotic count, site of origin

(B) Expression of CD34 and DOG-1, mitotic count, site of origin

(C) Metastases in the liver, mitotic count, site of origin

(D) Tumour size, mitotic count, and site of origin

**92.** Which of the following will not help to reduce metal artefacts in MRI?

(A) Use spin echo sequence

(B) Reduce bandwidth

(C) Use STIR for fat suppression

(D) ReduceTE

**93.** Principle of microwave ablation is

(A) Dielectric hysteresis

(B) Joule Thompson effect

(C) Micropore formation

(D) Cavitation bio effects

**94.** Risk of radiation pneumonitis post-TARE significantly increases when?

(A) Radiation dose of >30 mGy in a single session

(B) Cumulative dose of 50 Gy to the lungs after radio-embolization

(C) Radiation dose of >30 microGy in a single session

(D) Cumulative dose of 50 mGy to the lungs after

**95.** Classification used for assessing bronchial artery branching patterns:

(A) Tian's

(B) Rosch's

(C) Michael's

(D) Cauldwell

**96.** Which of the following is not a metal artefact reducing technique?

(A) MAVRIC

(B) SEMAC

(C) FDRI

(D) VAT

**97.** Which of the following is not an indication of TIPSS?

(A) Secondary prevention of esophageal variceal bleeding

(B) Treatment of refractory ascites

(C) Hepatic encephalopathy

(D) Hepatic hydrothorax

**98.** Which of the following is not an off-label drug/technique used in intervention radiology?

(A) Treatment of venous malformations with sodium tetradecylsulphate

(B) Using reverse end of a guidewire

(C) Intra arterial nimodipine administration

(D) Intravenous heparin administration

**99.** Recommended cortisol gradient for adequate adrenal venous sampling.

(A) 1

(B) 1.5

(C) 1.2

(D) 3

**100.** In a 5Fr guiding catheter, 5 Fr indicates its

(A) Outer diameter

(B) Inner diameter

(C) Outer diameter/2

(D) Inner diameter/2

**101.** Heat sink effect is most pronounced in:

(A) Microwave ablation

(B) Radiofrequency ablation

(C) Cryoablation

(D) Histotripsy

**102.** In a 6 mm × 40 mm balloon, which of the following is correct?

(A) 6 mm is balloon length, 40 mm is balloon diameter

(B) 6 mm is balloon length, 40 mm is shaft length

(C) 6 mm is balloon diameter, 40 mm is balloon length

(D) 6 mm is shaft length, 40 mm is balloon diameter

**103.** Which of the following is true about Chiba needle as compared to a spinal needle?

(A) Bevel length is shorter in Chiba than spinal needle

(B) Bevel angle is 20 degrees in Chiba, 30 degrees in spinal needle

(C) Chiba needles have smaller inner lumen as compared to spinal needles

(D) Different length available for spinal needles, standard single length available for Chiba needle

**104.** Which of the following is incorrect about single wall-puncture technique (as compared to double-wall puncture technique)?

(A) Can be beneficial in patients with coagulopathy.

(B) Preferred technique when USG access is available.

(C) Risk of arterial dissection is low.

(D) Fewer puncture site complications such as hematoma and AVF.

**105.** Which of the following is incorrect regarding irreversible electroporation for HCC?

(A) Thermal based ablation modality

(B) Uses high-voltage, high-intensity electric pulses of short duration

(C) Induces irreversible pores in the cell membrane

(D) Suitable especially for lesions located close to vital structures

**106.** Which of the following is not a component of MELD score?

(A) INR

(B) Serum albumin

(C) Serum creatinine

(D) Bilirubin

**107.** Color of a 7Fr vascular access sheath will be:

(A) Green

(B) Blue

(C) Grey

(D) Orange

**108.** Which of the following is not a reverse-curve catheter?

(A) SOS Omni

(B) Simmons

(C) Cobra

(D) Mickelson

**109.** The pressure at which the manufacturer has 95% confidence that 99.9% of the balloons will not burst at or below upon single inflation is called as?

(A) Rated burst pressure

(B) Nominal pressure

(C) Balloon profile

(D) Balloon compliance

**110.** Which of the following is incorrect about biodegradable stents?

(A) Made of polydioxanone

(B) Commonly used in biliary system

(C) Preferred for benign biliary strictures

(D) Polydioxanone has good visibility on fluoroscopy

**111.** Nitinol stands for

(A) Nichrome -titanium-naval ordinance laboratory

(B) Nickel-titanium-naval ordinance laboratory

(C) Nickel-tin-naval ordinance laboratory

(D) Nichrome -tin-naval ordinance laboratory

**112.** Which of the following is not a component of Onyx?

(A) Tantalum

(B) Dimethyl sulfoxide

(C) Cyanoacrylate

(D) Ethylene vinyl alcohol copolymer

**113.** Which finding on a plain film of the knee suggests a patellar tendon rupture?

(A) Increased joint space

(B) Patellar osteophytes (bone spurs)

(C) Patella alta

(D) Soft tissue swelling

**114.** On X-ray, a "Hill-Sachs lesion" (indent in the humeral head) suggests a tear of which of the following structure?

(A) Anterior capsular-labral complex

(B) Supraspinatus

(C) Infraspinatus

(D) Teres minor

**115.** What is the characteristic X-ray finding in a Lisfranc injury?

(A) Widening of the ankle joint space

(B) Disruption of the tarsometatarsal articulation

(C) Disruption of the intertarsal articulation

(D) Avulsion fracture of the fifth metatarsal

**116.** What is a Salter-Harris Type 1 fracture?

(A) Greenstick fracture

(B) Growth plate fracture

(C) Comminuted fracture

(D) Transverse fracture

**117.** First cerebral angiography was performed by

(A) Andreas Gruentzig

(B) Charles Dotter

(C) David Sheriden

(D) Egas Moniz

**118.** While placement of a 6Fr vascular access sheath, the skin hole size will be-

(A) 1 mm-1.2 mm

(B) 1.5 mm-1.8 mm

(C) 1.8 mm-2 mm

(D) 2.4 - 2.6 mm

**119.** Contrast injection rate for coeliac artery-

(A) 5-7 ml/s

(B) 12-14 ml/s

(C) 18-20 ml/s

(D) 22-24 ml/s

**120.** Which of the following is incorrect about BRTO?

(A) Used for gastric varices in presence of gastrorenal shunt

(B) Also reduces risk of esophageal variceal bleeding

(C) Improves hepatic encephalopathy

(D) Worsens ascites

**121.** What is Legg-Calve-Perthes disease?

(A) Avascular necrosis of the femoral head in children

(B) Displacement of the femoral growth plate

(C) Dextroscoliosis

(D) Osteomyelitis of vertebral end plates

**122.** "Bulging fissure" sign is seen in which of the following pneumonia?

(A) Hemophilus influenzae

(B) Klebsiella

(C) Streptococcal

(D) Pneumococcal

**123.** Which of the following statements is NOT true about miliary nodules?

(A) 1-3mm in size

(B) Occurs due to hematogenous spread of infection

(C) Predominant peribronchovascular in distribution

(D) Bilateral (more in lower lobe)

**124.** "Air crescent sign" is seen in all of the following except:

(A) Simple aspergilloma

(B) Airway invasive aspergillosis

(C) Angio-invasive aspergillosis

(D) Hydatid cyst

**125.** Which of the following infections can give rise to crazy paving pattern on HRCT?

(A) Klebsiella

(B) Aspergillus

(C) Mycoplasma

(D) Pneumocystis

**126.** "Lordotic view" chest radiograph is best used for which of the following?

(A) Right middle lobe collapse

(B) Right lower lobe collapse

(C) Left upper lobe collapse

(D) Left lower lobe collapse

127. "Hot tub lung" is caused by which organism?

(A) Aspergillus

(B) Legionella

(C) Chlamydia

(D) Mycobacterium avium complex

128. Pseudo-cavitation sign is seen in which of the following?

(A) Necrotizing bacterial pneumonia

(B) Mucormycosis

(C) Lymphoma

(D) Adenocarcinoma

129. Causes of miliary metastases to lungs are all except

(A) Carcinoma colon

(B) Melanoma

(C) Thyroid carcinoma

(D) Carcinoma stomach

130. Luftsichel sign is seen in

(A) Left lower lobe collapse

(B) Right middle lobe collapse

(C) Right upper lobe collapse

(D) Left upper lobe collapse

131. In lobar pneumonia, consolidation of middle lobe will result in loss of which silhouette on a chest X-ray?

(A) Left paravertebral stripe

(B) Right hemidiaphragm

(C) Right heart border

(D) Right paravertebral stripe

132. Which of the following bronchus is most commonly involved in tracheobronchial tuberculosis?

(A) Right upper lobe bronchus

(B) Bronchus intermedius

(C) Left upper lobe bronchus

(D) Left lower lobe bronchus

133. Empyema necessitans is a condition in which empyema?

(A) Extends into the subcutaneous plane through parietal pleura

(B) Extends to ribs

(C) Extends into the mediastinum

(D) Shows no enhancement of pleura

134. Cystic lung disease with bizarre shaped cysts predominantly in the upper lobes are seen in

(A) LCH

(B) LIP

(C) LAM

(D) Hypersensitivity pneumonia

**135.** Most common site of tuberculosis in rib is

(A) Costochondral junction

(B) Shaft of rib

(C) Costovertebral junction

(D) No predilection seen

**136.** Embolic agent of choice for bronchial artery embolization is

(A) Glue

(B) Coils

(C) PVA particles

(D) Gelfoam

**137.** Rapid MRI is advocated in the evaluation of

(A) Cystic fibrosis

(B) Mediastinal lymph nodes

(C) Congenital cardiac anomalies

(D) Persistent empyema

**138.** Stocker's classification system is used for

(A) Bronchogenic cysts

(B) Congenital pulmonary airway malformation

(C) Pulmonary sequestration

(D) LCH

**139.** All of the following are seen in bronchial carcinoid, EXCEPT.

(A) Hyperintense on T2WI

(B) Cavitation

(C) Calcification

(D) Lymphadenopathy

**140.** Most common primary tumor to metastasize to pleura is

(A) Breast

(B) Lymphoma

(C) Lung

(D) Stomach

**141.** All of the following are seen in DIPNECH, expect

(A) Multiple solid or subsolid nodules

(B) Mosaic attenuation

(C) Cysts

(D) Consolidation

**142.** Definite UIP pattern includes all except:

(A) Honeycombing

(B) Reticulation

(C) Ground glass opacities

(D) Subpleural distribution with basal predominance

**143.** Cluster of black pearls sign is seen in

(A) Tuberculosis

(B) LCH

(C) Sarcoidosis

(D) Coal workers pneumoconiosis

**144.** Congenital lobar over inflation most commonly involves which of the following lung lobes?

(A) Right upper lobe

(B) Right middle lobe

(C) Left upper lobe

(D) Left lower lobe

**145.** Characteristic of benign tumor of lung is

(A) Size > 5cm

(B) Cavitation

(C) Peripheral location

(D) Concentric dense calcification

**146.** Increased radiolucency of hemithorax is seen in all except

(A) Pneumothorax

(B) Patient rotation

(C) Expiratory film

(D) Obstructive emphysema

**147.** Egg shell calcification in hilar region is seen in

(A) Tuberculosis

(B) Aneurysms

(C) Pneumoconiosis

(D) Metastases

**148.** Rib notching is caused by

(A) Coarctation of aorta

(B) Neurofibromatosis

(C) SVC obstruction

(D) All of the above

**149.** Obliteration of left heart border in PA chest X-ray is suggestive of

(A) Left lower lobe lesion

(B) Left hilar lymph nodes

(C) Left upper lobe lesion

(D) Lingular pathology

**150.** Water lily appearance on chest X-ray is suggestive of

(A) Bronchiectasis

(B) Hydatid cyst

(C) Bronchogenic cyst

(D) Broncho pleural fistula

**151.** Popcorn calcification is seen in

(A) Sarcoidosis

(B) Silicosis

(C) Pulmonary Hamartoma

(D) Bronchial carcinoid

**152.** A 54-year-old female with node-positive invasive lobular breast cancer has a 2.1-cm homogeneous right adrenal mass. Adrenal protocol CT is performed utilizing 1-minute and 15-minute delays. Relative washout is calculated to be 50%. Which of the following is the most likely diagnosis?

(A) Pheochromocytoma

(B) Metastasis

(C) Adenoma

(D) Adrenocortical carcinoma

**153.** A 42-year-old male with diabetes mellitus type I complicated by end- stage renal disease undergoes a renal transplant. A percutaneous renal biopsy is performed 6 months later due to an elevated serum creatinine, and a subsequent renal ultrasound demonstrates an intrarenal arteriovenous fistula. What spectral Doppler waveform is characteristic of this entity?

(A) High velocity, high resistance

(B) High velocity, low resistance

(C) Low velocity, high resistance

(D) Low velocity, low resistance

**154.** A 40-year-old female with postprandial pain and no other past medical history undergoes a right upper quadrant ultrasound. The gallbladder and biliary tree are normal, but an incidental 2.0-cm mass is identified in the right suprarenal fossa. An abdominal MRI follows confirming that the mass arises from the right adrenal gland. India ink artifact is observed within the mass encircling a 1.2-cm internal nodule. What is the most likely diagnosis?

(A) Pheochromocytoma

(B) Myelolipoma

(C) Collision tumor

(D) Adrenocortical carcinoma

**155.** A 55-year-old male with non-small cell lung cancer and a 1.5-cm homogeneous right adrenal nodule presents for triphasic adrenal protocol CT. Which of the following image time combinations has shown to be most effective for adrenal nodule characterization?

(A) Unenhanced, 1 minute post contrast, 20 minutes post contrast

(B) Unenhanced, 1 minute post contrast, 15 minutes post contrast

(C) Unenhanced, 1 minute post contrast, 10 minutes post contrast

(D) Unenhanced, 1 minute post contrast, 5 minutes post contrast

156. What are the common radiographic manifestations of medullary sponge kidney?

(A) Cortical nephrocalcinosis alone

(B) Cortical nephrocalcinosis and renal tubular ectasia

(C) Medullary nephrocalcinosis alone

(D) Medullary nephrocalcinosis and renal tubular ectasia

157. Which of the following correctly describes the normal temporal progression of radiographic contrast material uptake and excretion from the kidneys?

(A) Corticomedullary, nephrographic, pyelographic

(B) Corticomedullary, pyelographic, nephrographic

(C) Nephrographic, corticomedullary, pyelographic

(D) Nephrographic, pyelographic, corticomedullary

158. A 40-year-old nursing home resident with neurocognitive deficits and urinary retention is found to have bladder cancer attributable to a chronic indwelling Foley catheter. Which of the following risk factors for bladder cancer is classically associated with the same malignant cell type?

(A) Smoking history

(B) Urachal remnant

(C) Schistosoma haematobium infection

(D) Polycyclic aromatic hydrocarbon exposure

159. Where along the male urethra are the glands of Littre?

(A) Dorsal surface of the anterior urethra

(B) Ventral surface of the anterior urethra

(C) Dorsal surface of the posterior urethra

(D) Ventral surface of the posterior urethra

160 A 25-year-old male suffers severe pelvic trauma and develops a type II urethral injury. Which of the following mechanisms is most strongly associated with this injury pattern?

(A) Blunt anterior injury

(B) Shearing injury

(C) Anterior penetrating injury

(D) Straddle injury

161. What visible anatomic landmark most reliably signifies the junction between the anterior and posterior urethra on retrograde urethrography?

(A) Inferior margins of the obturator foramina

(B) Superior margins of the obturator foramina

(C) Cone-shaped end of the bulbar urethra

(D) Cone-shaped end of the membranous urethra

**162.** What is a "watering can perineum"?

(A) Post infectious perineal fistulas

(B) Gangrenous perineal abscesses

(C) Severe perineal edema

(D) Postoperative perineal ulcers

**163.** A 57-year-old asymptomatic male with no past medical history presents with an elevated prostate-specific antigen (PSA, 7.2 ng/mL). What is the reported sensitivity of transrectal gray scale ultrasound for the detection of clinically significant prostate cancer?

(A) <1%

(B) 10%

(C) 50%

(D) 90%

**164.** Modern multi parametric prostate MRI incorporates multiple advanced anatomic and functional pulse sequences. Which of the following pulse sequences utilize strong bipolar gradients to differentiate moving from stationary spins?

(A) Fast spin echo and spin echo

(B) Spin echo and balanced gradient echo

(C) Balanced gradient echo and echo planar imaging

(D) Echo planar imaging and phase contrast

**165.** A 42-year-old male presents with a palpable finding in his left scrotum. An ultrasound is performed demonstrating a solid mass. What imaging finding is most helpful for determining whether this mass is benign or malignant?

(A) Presence of calcifications

(B) Degree of vascularity

(C) Echogenicity

(D) Location in or outside the testicle

**166.** A 30-year-old male with abdominal pain and weight loss undergoes an abdomino-pelvic CT examination. Multiple enlarged lymph nodes are identified suggestive of metastatic disease. What is the typical nodal drainage of the male gonads?

(A) Inguinal and external iliac lymph nodes

(B) Obturator and internal iliac lymph nodes

(C) Paracaval and para-aortic lymph nodes

(D) Paraceliac and gastrohepatic lymph nodes

**167.** A 19-year-old male with von Hippel-Lindau syndrome presents with bilateral scrotal masses. Which tumors of the scrotal sac are associated with this disease?

(A) Seminoma

(B) Embryonal cell carcinoma

(C) Epididymal cystadenoma

(D) Spermatic cord liposarcoma

**168.** A 70-year-old female presents with postmenopausal bleeding. No biopsy has been performed. What is the best imaging test for this patient?

(A) Hysterosalpingogram

(B) Transvaginal ultrasound

(C) Computed tomography

(D) Magnetic resonance imaging

**169.** A 70-year-old female with postmenopausal bleeding undergoes a transvaginal pelvic ultrasound. What endometrial stripe measurement is an indication for endometrial biopsy?

(A) ≥ 3mm

(B) ≥ 4mm

(C) ≥ 5mm

(D) ≥ 6mm

**170.** A 28-year-old female with primary infertility undergoes a hysterosalpingogram. Which of the following maneuvers will reduce the radiation dose delivered to the patient?

(A) Changing from 5 to 3 pulses per second

(B) Placing a lead apron on the operator

(C) Moving the image intensifier away from the patient

(D) Opening the collimation

**171.** A 30-year-old female with menorrhagia undergoes a pelvic MRI. What junctional zone thickness is commonly used to indicate a high specificity for the diagnosis of adenomyosis?

(A) > 4mm

(B) > 8mm

(C) > 12mm

(D) > 16 mm

**172.** A 32-year-old female with multiple uterine fibroids undergoes consultation for uterine artery embolization. She is deemed a suitable candidate. A pre procedure MRI is performed, and large bilateral corkscrew-shaped vessels are identified extending from the aorta to the uterus. Based on this finding, what is the best next step?

(A) Uterine artery embolization is contraindicated.

(B) Unilateral uterine artery embolization should be performed.

(C) Bilateral uterine artery embolization should be performed.

(D) Bilateral uterine and gonadal artery embolization should be performed

**173.** Which of the following has a classic association with a "T-shaped uterus"?

(A) Diffuse adenomyosis

(B) Exposure to a fetal carcinogen

(C) Multifocal leiomyomata

(D) Endometrial cancer

**174.** A 32-year-old G1 P1 female presents with secondary infertility. Which of the following best characterizes the role of ultrasound in the diagnosis of polycystic ovary syndrome (PCOS)?

(A) Numerous bilateral ovarian cysts are a highly sensitive marker of PCOS.

(B) Numerous bilateral ovarian cysts are a highly specific marker of PCOS.

(C) Ultrasound has only a supportive role in the diagnosis of PCOS.

(D) Ultrasound has no role in the diagnosis of PCOS

**175.** A 40-year-old female undergoes a transvaginal ultrasound, and a cystic adnexal mass is identified. A repeat study performed 2 months later shows no interval change. Which of the following imaging findings most strongly suggests a malignant etiology?

(A) Two 4-mm-thick septations

(B) Diffuse low-level internal echoes

(C) Tubular configuration with a "waist sign"

(D) Solid-appearing area with concave margins and no internal flow

**176.** In utero diethylstilbestrol exposure has a strong association with which of the following malignancies?

(A) Uterine sarcoma

(B) Endometrial adenocarcinoma

(C) Vaginal clear cell adenocarcinoma

(D) Ovarian carcinosarcoma

**177.** Which of the following is a risk factor for Actinomyces israelii infection of the fallopian tubes?

(A) Unprotected sexual intercourse

(B) Intrauterine device placement

(C) Oral contraceptive use

(D) Uterus didelphys

**178.** A 28-year-old female with hypotension and severe pelvic pain presents for pelvic ultrasound. A urine beta-HCG is positive, and no normal pregnancy is identified. If this patient has an ectopic pregnancy, where is it most likely to be located?

(A) Uterus

(B) Fallopian tube

(C) Ovary

(D) Cul-de-sac

**179.** Which of the following structures is located in the anterior pararenal space?

(A) Kidney

(B) Duodenum

(C) Transverse colon

(D) Stomach

**180.** A 70-year-old female with atrial fibrillation on warfarin therapy develops severe abdominal pain after a fall. What is the typical range of attenuation for clotted blood on an unenhanced CT of the abdomen?

(A) 0 to 20 HU

(B) 20 to 40 HU

(C) 40 to 70 HU

(D) 70 to l00 HU

**181.** A 70-year-old male presents for an ultrasound-guided percutaneous biopsy of an incidentally detected 2-cm homogeneously enhancing solid renal mass. What is the most common complication of this procedure?

(A) Hemorrhage

(B) Needle-track seeding

(C) Renal abscess

(D) Collecting system obstruction

**182.** A 70-year-old male with an incidentally detected 2-cm solid renal mass presents for a discussion regarding management. What is the commonly cited size threshold at which renal cell carcinoma is prone to metastasize?

(A) l cm

(B) 3 cm

(C) 5 cm

(D) 7 cm

**183.** Crista terminalis is a identifying feature of

(A) Left atrium

(B) Right atrium

(C) Left ventricle

(D) Right ventricle

**184.** Three chamber view includes all except

(A) Left ventricle

(B) Left atrium

(C) Left ventricular outflow tract

(D) Right ventricle

**185.** Best view in cardiac MRI to look for aortic regurgitation.

(A) Three chamber view

(B) 4 chamber view

(C) Vertical long axis view

(D) Horizontal long axis view

**186.** All are true regarding prospective ECG Gating except

(A) Needs normal sinus rhythm

(B) Cine imaging can be done

(C) Step and shoot technique

(D) Less radiation risks

**187.** Echogenic focus in left ventricle is highest association with

(A) Downs syndrome

(B) Kartagener syndrome

(C) Beckwith-wiedemann syndrome

(D) Sotos syndrome

**188.** Coronary dominance is decided by

(A) Obtuse marginal artery

(B) Acute marginal artery

(C) Posterior descending artery

(D) Diagonal branches

**189.** Myocardial bridging is most commonly seen with

(A) Posterior descending artery

(B) Acute marginal artery

(C) Obtuse marginal artery

(D) Left anterior descending artery

**190.** Most common cause of coronary artery aneurysm in adult is

(A) Kawasaki disease

(B) Atherosclerosis

(C) Mycotic

(D) Takayasu arteritis

**191.** Agatson score is significant when

(A) >120

(B) >140

(C) >160

(D) >100

**192.** In VENC if the velocity range is too high. The problem with the image will be

(A) Aliasing

(B) Noisy image

(C) Susceptibility artifacts

(D) Chemical shift artifact

**193.** Most superiorly located cardiac valve.

(A) Aortic

(B) Pulmonary

(C) Tricuspid

(D) Bicuspid

**194.** Most common cause of tricuspid regurgitation in adults.

(A) Carcinoid syndrome

(B) Endocarditis

(C) Pulmonary artery hypertension

(D) Rheumatic heart disease

**195.** All are BIRADS description of mammography except.

(A) Spiculated

(B) Indistinct

(C) Irregular

(D) Angular

**196.** 3 VT view includes all except

(A) Pulmonary artery

(B) Aorta

(C) Ductus arch

(D) IVC

**197.** Criteria for a well positioned MLO view (mammography) is all except.

(A) Nipple to be seen in profile

(B) Pectoralis muscle should extend superior to posterior nipple line

(C) Visible inframammary fold

(D) No superimposition of skin folds

**198.** Fibro glandular tissues are more dense in

(A) Upper outer quadrant

(B) Upper inner quadrant

(C) Lower inner quadrant

(D) Lower outer quadrant

**199.** Dangerous area of breast is

(A) Upper outer quadrant

(B) Upper inner quadrant

(C) Lower inner quadrant

(D) Lower outer quadrant

**200.** Best time to do mammography.

(A) Follicular phase

(B) Luteal phase

(C) During ovulation

(D) Menstrual phase

**SPACE FOR ROUGH WORK**

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