

General Instructions

- (i) This question paper contains 200 questions. All questions are compulsory.
- (ii) It comprises 198 single-correct multiple-choice questions and 2 multiple-correct questions.
- (iii) Attempt every question; detailed solutions are provided in the companion solutions booklet.
- (iv) For multiple-correct questions, all correct options must be selected to earn full marks.

1. A young patient developed painless sudden loss of vision which spontaneously improved over a period of 3 months. What is the most probable diagnosis?

- (A) Macular hole
- (B) Central serous retinopathy
- (C) Angle closure glaucoma
- (D) Retinal detachment

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2. Leucoria is seen in all of the following EXCEPT

- (A) Retinoblastoma
- (B) Congenital glaucoma
- (C) Persistent hyperplastic primary vitreous
- (D) Fungal endophthalmitis

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3. A female patient complains of blurring of vision and was prescribed $-0.5D$ spherical lenses. Retinoscopy done at 1 m with a plane mirror will cause the image to move in which manner?

- (A) Image moves in the direction of the mirror
- (B) Image moves in the opposite direction
- (C) No movement of the image
- (D) Scissors reflex is seen

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4. What is the most common eye manifestation of allergy to tubercular bacilli?

- (A) Koeppe's nodules
- (B) Posterior scleritis
- (C) Phlyctenular conjunctivitis
- (D) Optic neuritis

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5. What is the diagnosis for ropy discharge from the eyes, along with itching, which occurs every summer?

- (A) Vernal catarrh
- (B) Bacterial conjunctivitis
- (C) Trachoma
- (D) Phlyctenular conjunctivitis

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6. Which wall is most often fractured in a blow out fracture of the orbit due to a fistcuff injury?

- (A) Superior wall
- (B) Inferior wall
- (C) Medial wall
- (D) Lateral wall

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7. Which of these is NOT useful in arriving at a diagnosis of moderate papilledema in a patient of head injury?

- (A) Impaired pupillary reflex
- (B) Hyperemia
- (C) Filling of the physiological cup
- (D) Blurring of the margins

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8. What is represented by ETDRS in a diabetic vision chart?

- (A) Elective treatment for diabetic retinopathy scales
- (B) Extended Rx for diabetes review study
- (C) Early Treatment Diabetic Retinopathy Study
- (D) Eye test drum review study

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9. What drug can be used that will provide only mydriasis and no cycloplegia, for a fundus examination in a young adult patient?

- (A) Atropine ointment
- (B) Phenylephrine
- (C) Homatropine
- (D) Tropicamide

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10. Which of these is NOT caused by amphotericin B?

- (A) Azotemia
- (B) Glomerulonephritis
- (C) Hypokalemia
- (D) Renal tubular acidosis

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11. Ingestion of what product by the mother may cause the infant to have cleft palate, spina bifida and an (ASD doubtful)?

- (A) Isotretinoin
- (B) Valproate
- (C) Phenytoin
- (D) Carbamazepine

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12. What is the most common cardiac defect caused due to lithium?

- (A) Ebstein's anomaly
- (B) HOCM
- (C) Aortic aneurysm
- (D) Eisenmenger syndrome

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13. A man is arrested for possession of narcotics, the culprit is found to have black tongue. What is likely to have been the substance of abuse?

- (A) Heroin
- (B) Cocaine
- (C) Cannabis
- (D) Arsenic

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14. A 25 yr old male experienced severe flushing, fall in blood pressure after intake of alcohol. The above described attack can be precipitated by the simultaneous intake of all the following drugs along with alcohol EXCEPT which?

- (A) Cefamandole
- (B) Metronidazole
- (C) Dexamethasone
- (D) Chlorpropamide

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15. A patient with a history of asthma develops a respiratory tract infection. He is on theophylline. Which of the following antibiotics may precipitate theophylline toxicity?

- (A) Erythromycin
- (B) Sparfloxacin
- (C) Ampicillin
- (D) Cotrimoxazole

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16. In which of the following conditions is granulomatous vasculitis NOT seen?

- (A) Microscopic Polyangiitis
- (B) Wegener's Granulomatosis
- (C) Giant Cell Arteritis
- (D) Churg-Strauss Syndrome

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17. A 30 year old patient with nephrotic syndrome has been on steroids for 14 years. He has bilateral difficulty in abduction and internal rotation of the hip, and attempting to flex the hip results in abduction. What is the cause?

- (A) Avascular Necrosis of Femur Head
- (B) Septic Arthritis
- (C) Renal Osteodystrophy
- (D) Heterotopic Calcification

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18. In which of the following conditions is an elevated HCG level NOT seen?

- (A) Choriocarcinoma
- (B) Polyembryoma
- (C) Endodermal Sinus Tumor
- (D) Embryonal Carcinoma

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19. What could be the cause of tall QRS complexes with coarse facial features and hepatosplenomegaly?

- (A) Glycogen Storage Disease Type II
- (B) Marfan's Syndrome
- (C) Romano-Ward Syndrome
- (D) Pompe's Disease

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20. What is the treatment for torsades de pointes in a patient who has had a prolonged QT interval since birth?

- (A) Magnesium Sulphate
- (B) Overdrive Pacing
- (C) Isoproterenol
- (D) Metoprolol

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21. Which of the following is NOT a congenital myopathy?

- (A) Central Core Disease
- (B) Nemaline Myopathy
- (C) Centronuclear Myopathy
- (D) Z Band Myopathy

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22. In which of these conditions may CPK be raised?

- (A) Muscle disease
- (B) Liver cirrhosis
- (C) Biliary colic
- (D) Amyotrophic lateral sclerosis

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23. A patient with hypertension has a serum urea of 55 mg/dL and serum creatinine of 5.6 mg/dL, indicating renal failure. Which of the following anti-tubercular drugs does NOT require the dose to be reduced in this patient?

- (A) INH
- (B) Rifampin
- (C) Pyrazinamide
- (D) Ethambutol

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24. What drug should be avoided in the case of an HIV patient who is receiving zalcitabine, indinavir and lamivudine?

- (A) INH
- (B) Rifampin
- (C) PZA
- (D) Ethambutol

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25. What is NOT true about multiple myeloma?

- (A) It is more common in those over 50 years of age
- (B) It arises from clones of plasma cells
- (C) Bence Jones proteins are abnormal whole immunoglobulins found in urine
- (D) There is a predisposition to amyloidosis

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26. What is the likely diagnosis in a patient who has low back ache, L3 tenderness, and the following data: total proteins 8.9 g/dL, albumin:globulin ratio 2.9/5.9 (reversed), serum creatinine 5.5 mg/dL, TLC 4500/mm³, DLC neutrophils 55%, lymphocytes 40%, eosinophils 2%; blood urea was 93 mg/dL and serum creatinine was 1.2 mg/dL; ESR was 90 mm in the first hour?

- (A) Waldenstrom's macroglobulinemia
- (B) Multiple myeloma
- (C) Amyloidosis
- (D) Bone secondaries

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27. A patient has target cells, nucleated RBCs, and microcytic hypochromic anemia on the peripheral smear, along with a positive family history. What is the investigation of choice?

- (A) Coombs test
- (B) Osmotic fragility
- (C) Hb electrophoresis
- (D) Sucrose lysis test

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28. Which of these is NOT a clinical feature of hypercarbia?

- (A) Miosis
- (B) Cold clammy extremities
- (C) Bradycardia
- (D) Hypertension

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29. A 25 year old male has a Mantoux test reading of 14 x 17 mm, along with weight loss, intermittent low grade fever, and hemoptysis for the past 4 months. Sputum smear is negative for acid fast bacilli (AFB) and the ESR is raised. What is the likely diagnosis?

- (A) Pulmonary tuberculosis (PTB)
- (B) Viral pneumonia
- (C) Fungal pneumonia
- (D) Bronchogenic carcinoma

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30. Which of the following statements is NOT true about prion disease?

- (A) About 10% of patients have myoclonus
- (B) It is caused by an infectious protein
- (C) Dementia is a universal feature
- (D) Brain biopsy is diagnostic

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31. What is the likely diagnosis in a 25 year old who develops hematuria 3 days after an upper respiratory tract infection (URI)?

- (A) IgA nephropathy
- (B) Post-streptococcal glomerulonephritis (PSGN)
- (C) Henoch-Schonlein purpura (HSP)
- (D) Hemolytic uremic syndrome (HUS)

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32. An individual who underwent renal transplantation one year ago is found positive for HBsAg and HCV. Treatment with which of the following will give this patient maximum benefit?

- (A) Lamivudine and interferon (IFN)
- (B) Lamivudine alone
- (C) Ribavirin
- (D) Interferon (IFN)

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33. In which of the following conditions should propranolol NOT be used?

- (A) Asthma
- (B) Panic attack
- (C) Premature ventricular contractions (PVCs)
- (D) Hypertrophic cardiomyopathy

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34. Which of the following is NOT a CNS anomaly seen in HIV infection?

- (A) Perivascular infiltration
- (B) Microglial nodules
- (C) Vascular myelopathy of the posterior column
- (D) Temporal lobe involvement

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35. Which of the following is NOT true regarding toxoplasmosis?

- (A) IgG antibody indicates congenital infection
- (B) Most infections are anthroponotic
- (C) Adult infections are mainly symptomatic
- (D) Toxoplasma encephalitis occurs in immunocompetent persons

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36. What is NOT true regarding an adult hemophiliac who visits a dentist?

- (A) Cryoprecipitate may be needed
- (B) The dose of lidocaine required is increased
- (C) HIV screening is required
- (D) Monitored GA care needs to be given

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37. What is NOT true about fibrolamellar cancer of the liver?

- (A) Not more common in males
- (B) Better prognosis
- (C) AFP is raised over 1000
- (D) Seen in a younger age group

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38. Adult polycystic kidney disease (PCKD) is associated with which of these?

- (A) Fusiform abdominal aortic aneurysm
- (B) Berry aneurysm
- (C) Saccular aneurysm of ascending aorta
- (D) Aneurysm of the arch of aorta

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39. An 18-year-old boy presents with massive hematemesis, and the spleen is evidently enlarged up to the umbilicus. He is then found to have varices on esophagoscopy. What could be the diagnosis?

- (A) Budd-Chiari syndrome
- (B) Veno-occlusive disease
- (C) Non-cirrhotic portal fibrosis
- (D) Cirrhosis of the liver

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40. What is NOT true with regard to the adult polycystic kidney?

- (A) Hematuria
- (B) Hypertension is rare
- (C) Autosomal dominant transmission
- (D) Cysts are seen in the liver, spleen and pancreas

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41. An 18-year-old presents with massive hematemesis and a history of fever for the past 14 days that was treated with drugs. A moderately enlarged spleen is present. What is the diagnosis?

- (A) NSAID-induced duodenal ulcer
- (B) Drug-induced gastritis
- (C) Esophageal varices
- (D) Portal hypertension

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42. A 25-year-old male with no previous cardiac complaints presents with arrhythmia. He gives a recent history of binge drinking. What is the pathology likely in this patient?

- (A) Atrial fibrillation
- (B) Supraventricular tachycardia
- (C) Ventricular ectopics
- (D) Atrial flutter

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43. Which condition may cause hypothalamic hypogonadism?

- (A) Frohlich syndrome
- (B) Foster Kennedy syndrome
- (C) Kallmann syndrome
- (D) Fragile X syndrome

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44. What is the next line of management for a 25 year old woman who develops acute pulmonary embolism?

- (A) Thrombolysis
- (B) LMW heparin
- (C) Oral anticoagulants
- (D) IVC filter

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45. A 30 year old male patient presented with history of dizziness, vertigo, diplopia, dysphagia, weakness on the right side of the body, along with Horner's syndrome on the same side. Loss of pain and temperature sensations on the left side was noted. The patient also has loss of memory. Which artery is most likely involved in the condition described above?

- (A) Anterior inferior cerebellar
- (B) Posterior inferior cerebellar
- (C) Middle cerebral
- (D) Superior cerebellar

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46. In which of the following conditions is plasmapheresis useful?

- (A) Wegener's granulomatosis
- (B) HSP (Henoch-Schonlein purpura)
- (C) Goodpasture syndrome
- (D) Guillain-Barre syndrome

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47. Which of these does NOT feature eye manifestations in association with a seronegative arthropathy?

- (A) Psoriasis
- (B) Rheumatoid arthritis
- (C) Reiter's syndrome
- (D) Ankylosing spondylitis

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48. Why is the sickle cell carrier state usually asymptomatic?

- (A) The HbS carrier state has higher oxygen affinity
- (B) Less than 50% saturation does not cause sickling
- (C) There is allosteric binding of HbA to the HbS carrier state
- (D) There is ample HbF to make up for the carrier state

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49. An HIV patient is on treatment with didanosine, stavudine, and indinavir. He is diagnosed to have pulmonary tuberculosis. Which one of the following ATT drugs is to be avoided?

- (A) INH
- (B) Rifampin
- (C) PZA
- (D) Ethambutol

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50. A lady with congenital heart disease underwent a dental extraction and developed endocarditis. Which is the organism most likely to have been involved in the pathogenesis?

- (A) Staphylococcus aureus
- (B) Streptococcus pneumoniae
- (C) Streptococcus sanguis
- (D) Staphylococcus epidermidis

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51. In Rheumatic heart disease the vegetations are seen along the line of closure of the mitral valve. These vegetations are likely to get lodged in any of the following sites EXCEPT ?

- (A) Brain
- (B) Lung
- (C) Spleen
- (D) Kidney

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52. Which of these is Hepatitis B infection most commonly associated with?

- (A) PAN
- (B) Cryoglobulinemia
- (C) SLE
- (D) Polymyositis

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53. Which of these is NOT caused by enteroviruses?

- (A) Herpangina
- (B) Hemorrhagic fever
- (C) Pleurodynia
- (D) Aseptic meningitis

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54. Which of these is a calicivirus?

- (A) HAV
- (B) HBV
- (C) HCV
- (D) HEV

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55. From which area should a biopsy be taken in the case of a viral esophageal ulcer?

- (A) Edges
- (B) Surrounding mucosa
- (C) Base
- (D) Indurated area

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56. What is the investigation for an 8 yr old boy with a lesion on the back, featuring peripheral scaling and central scarring?

- (A) Tzanck test
- (B) KOH mount
- (C) Skin biopsy
- (D) Patch test

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57. What is the investigation of choice for invasive amebiasis?

- (A) ELISA
- (B) Biopsy
- (C) IHA (Indirect Haemagglutination Assay)
- (D) PCR

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58. A 30 year old patient who had a laparotomy recently developed an intraperitoneal abscess (peritonitis). The causative organism is a Gram positive coccus that is resistant to vancomycin and to bacitracin, grows well in 6.5% NaCl broth, and shows a positive optochin reaction. Which organism is the likely cause?

- (A) *Enterococcus faecalis*
- (B) *Streptococcus pneumoniae*
- (C) *Staphylococcus aureus*
- (D) *Peptostreptococcus*

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59. A patient has a brain abscess. The aspirated material is foul smelling and shows red fluorescence under ultraviolet light. Which organism could be implicated?

- (A) *Staphylococcus aureus*
- (B) *Peptostreptococcus*
- (C) *Bacteroides*
- (D) *Acanthamoeba*

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60. Which of the following does NOT feature preformed toxins?

- (A) *Staphylococcus aureus*
- (B) ETEC (Enterotoxigenic *E. coli*)
- (C) *Bacillus cereus*
- (D) *Clostridium botulinum*

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61. Which of the following is a marker for recent (acute) hepatitis B infection?

- (A) IgM anti-HBs
- (B) IgM anti-HBc
- (C) HBeAg
- (D) HBsAg

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62. What may be seen in a case of acute hepatitis B infection?

- (A) Dane particle
- (B) HBsAg
- (C) IgM anti-HBc
- (D) Anti-HBe

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63. If a PCR reaction is working at 100% efficiency, how many copies of the target are produced after 3 cycles, relative to the initial amount?

- (A) Double the initial amount
- (B) Thrice the initial amount
- (C) Four times the initial amount
- (D) Eight times the initial amount

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64. For which of these is northern blotting with hybridization useful?

- (A) Protein antigen
- (B) RNA
- (C) DNA
- (D) Histone

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65. Which of these may feature auto infection?

- (A) Ancylostoma
- (B) Enterobius
- (C) Ascaris
- (D) Paragonimus

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66. What medium is used for culture in a suspected case of legionnaires disease?

- (A) Thayer Martin
- (B) Buffered charcoal with yeast extract
- (C) Chocolate agar
- (D) Bordet Gengou

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67. Following a bee sting, the person develops periorbital edema, laryngospasm, breathing difficulty. These reactions are mediated through which of the following?

- (A) Cytotoxic T cell
- (B) IgE mediated
- (C) IgA mediated
- (D) Immune complex reactions

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68. CLED is preferred to McConkeys medium because?

- (A) It is a differential medium
- (B) Prevents swarming of Proteus
- (C) Supports the growth of Pseudomonas
- (D) Supports growth of Candida and Staphylococcus

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69. Two farmers were brought dead, autopsy done revealed viscera that had the smell of bitter almonds. The most likely poisoning is due to that by?

- (A) Organophosphorus
- (B) Hydrocyanic acid
- (C) Morphine
- (D) Atropine

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70. A case of poisoning was brought to the casualty, a gastric lavage was done, and the lavage turned black when it was heated after being treated with silver nitrate. The poisoning is most likely to have been due to which of the following?

- (A) Tik-20
- (B) Celfos
- (C) Malathion
- (D) Parathion

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71. Hemodialysis is mandatory in which poisoning?

- (A) Copper sulphate poisoning
- (B) Ethanol poisoning
- (C) Amphetamine poisoning
- (D) Organophosphorus poisoning

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72. Fine leathery froth that emanates from the nostrils on chest compression is diagnostic of death due to?

- (A) Drowning
- (B) Hanging
- (C) Morphine poisoning
- (D) Strangulation

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73. Which of these ectopic pregnancies is likely to progress for the maximum period?

- (A) Isthmic
- (B) Ampullary
- (C) Interstitial
- (D) Fimbrial

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74. What is the most likely cause for a 26 year old pregnant woman from Bihar referred to a tertiary centre with hepatic encephalopathy?

- (A) HAV
- (B) HBV
- (C) HCV
- (D) HEV

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75. At what time during gestation does phosphatidyl glycerol appear?

- (A) 20 weeks
- (B) 28 weeks
- (C) 32 weeks
- (D) 35 weeks

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76. 22 year old nullipara presents with 1 and half months amenorrhea, abdominal pain. USG reveals empty uterine cavity and free fluid in the pouch of Douglas. What is the likely diagnosis?

- (A) Twisted ovarian cyst
- (B) Threatened abortion
- (C) Ectopic pregnancy
- (D) Missed abortion

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77. 36 year old G3P3 patient had LCB 6 years ago, no medical evaluation since then. She now complains of excessive vaginal itching, skin pigmentation, lethargy, lack of axillary and body hair, cold intolerance, hoarseness of voice. On examination, her vagina is found to be atrophic. Which of these agents is NOT likely to improve her condition?

- (A) Insulin
- (B) Thyroid extract
- (C) Prednisolone
- (D) Estrogen

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78. What is the stage of an ovarian cancer with bilateral involvement, capsular rupture, and positive ascitic fluid for malignant cells?

- (A) I
- (B) II
- (C) III
- (D) IV

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79. Following a full term normal delivery (FTND), a woman develops postpartum hemorrhage after 2 days. Activated partial thromboplastin time (APTT) is raised, factor VIII is 10% of the normal value, while prothrombin time (PT) and thrombin time (TT) are normal. What is the likely diagnosis?

- (A) Acquired factor VIII deficiency
- (B) Hereditary factor VIII deficiency
- (C) DIC
- (D) Antiphospholipid syndrome

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80. Which of the following is NOT a clinical sign of scar rupture?

- (A) Maternal bradycardia
- (B) Fetal bradycardia
- (C) Hematuria
- (D) Bleeding per vaginum

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81. What is true about a diabetic pregnancy?

- (A) Cardiovascular anomalies are the most commonly seen congenital anomalies
- (B) Dexamethasone is contraindicated since it causes hyperglycemia
- (C) Screening for Down syndrome is not effective
- (D) Beta agonists are contraindicated in preterm labor

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82. What is the approximate pH of amniotic fluid?

- (A) 6.7-6.9
- (B) 6.9-7.0
- (C) 7.1-7.2
- (D) 7.4-7.5

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83. Which of the following is a normal finding in the third trimester of pregnancy?

- (A) Apex beat shifted to the 4th intercostal space
- (B) Cardiomegaly
- (C) Diaphragm is pushed up
- (D) Short mid diastolic murmur

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84. What could be the cause for difficulty in abduction and internal rotation in an 11 year old, 70 kg boy, having tenderness in Scarpa's triangle, painful hip movements, and a tendency of the limb to go into abduction upon flexion of the hip?

- (A) Perthes disease
- (B) Slipped capital femoral epiphysis
- (C) Tuberculosis of hip
- (D) Obturator hip

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85. What is the likely cause of a circumscribed osteosclerotic lesion in the tibial diaphysis in a 10 year old?

- (A) Osteoid osteoma
- (B) Ewing's sarcoma
- (C) Bone secondaries
- (D) Tuberculosis

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86. Which of the following features the best bone apposition?

- (A) Chondroblastic activity in endochondrium
- (B) Osteoblastic activity in membrane
- (C) Periosteal changes
- (D) Enchondral ossification

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87. Which condition is NOT likely to feature the painful arc syndrome?

- (A) Supraspinatus tendinitis
- (B) Subacromial bursitis
- (C) Complete supraspinatus tear
- (D) Fracture of greater tuberosity humerus

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88. What is used to correct ilio tibial tract contracture in a neonate?

- (A) Charnley's Test
- (B) Osbon's Test
- (C) Ober's Test
- (D) Jones Test

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89. What is the most common type of malignant melanoma?

- (A) Superficial spreading
- (B) Acral lentiginous
- (C) Nodular
- (D) Lentigo maligna

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90. What is the most common site for a lentiginous melanoma?

- (A) Sole of foot
- (B) Face
- (C) Leg
- (D) Trunk

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91. A melanocytic nevus of which type is most likely to undergo malignant transformation?

- (A) Blue nevus
- (B) Junctional
- (C) Epidermal
- (D) Deep dermal

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92. Which condition may feature fat-laden histiocytes in the gastric mucosa?

- (A) Signet ring cell carcinoma
- (B) Erosive gastritis
- (C) Post-gastrectomy status
- (D) Lymphoma

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93. Where do Call-Exner bodies occur?

- (A) Granulosa cell tumor
- (B) Theca cell tumor
- (C) Dysgerminoma
- (D) Brenner tumor

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94. Which condition does NOT feature granulomas?

- (A) *Mycoplasma pneumoniae*
- (B) *Mycobacterium tuberculosis*
- (C) *Mycobacterium leprae*
- (D) *Yersinia enterocolitica*

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95. What is NOT TRUE about apoptosis?

- (A) Surrounding inflammation
- (B) Macrophages take up dead tissue
- (C) Activation of caspase occurs
- (D) Endonucleases mediate chromatolysis

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96. Which of the following is a feature of aging cells?

- (A) Lipofuscin accumulation
- (B) Increased oxidative phosphorylation
- (C) Increased glycogen stores
- (D) Increased nuclear material and mitochondria

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97. From where do dividing cancer cells derive energy?

- (A) Glycolysis
- (B) Mitochondria
- (C) Oxidative phosphorylation
- (D) Anaerobic metabolism

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98. Which of the following is clathrin involved in?

- (A) Receptor mediated endocytosis
- (B) Receptor independent endocytosis
- (C) Receptor mediated exocytosis
- (D) Receptor independent exocytosis

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99. What parameter of the crescents is used to assess the severity in crescentic glomerulonephritis?

- (A) Size
- (B) Shape
- (C) Number
- (D) Pattern of distribution

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100. What is NOT true with regard to FAP (familial adenomatous polyposis)?

- (A) C-myc gene expression decreased
- (B) Antibodies to normal mucin
- (C) Due to defect in the FAP gene
- (D) Proliferation of colonic epithelium

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101. Which of the following is the true statement regarding minimal change disease?

- (A) Loss of foot processes
- (B) Antigen-antibody complexes
- (C) Loss of foot processes along with loss of charge across the membrane, hence leading to proteinuria
- (D) Destruction of the glomerulus, with minimal tissue only remaining intact

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102. What is the enzyme by which cancer cells become immortalised?

- (A) DNA polymerase
- (B) mRNA polymerase
- (C) Telomerase
- (D) Topoisomerase

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103. Which of these features a reversible change in cell polarity?

- (A) Dysplasia
- (B) Metaplasia
- (C) Anaplasia
- (D) Hyperplasia

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104. What does diapedesis refer to?

- (A) Attachment of neutrophils to blood vessel
- (B) Escape of neutrophils from capillaries through the capillary endothelium
- (C) Stimulation of cytokine secretion by inflammatory cells
- (D) Response of mediator cells to cytokine secretion

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105. What term is used to denote the replacement of alveolar epithelium by stratified squamous epithelium, seen on biopsy of a smoker's lung?

- (A) Anaplasia
- (B) Metaplasia
- (C) Dysplasia
- (D) Hyperplasia

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106. A child younger than 6 years has nephrotic syndrome that responds well to steroids. A renal biopsy is done. What will be seen under the light microscope?

- (A) Nothing
- (B) Loss of foot processes
- (C) Tubule atrophy
- (D) Crescents

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107. Which of these does not regress?

- (A) Salmon patch
- (B) Strawberry angioma
- (C) Portwine stain
- (D) Lymphangiomatosis circumscripta

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108. What could be the cause of improvement in the condition of a child having a perimembranous VSD and heart failure?

- (A) Reduction in size of the VSD
- (B) Pulmonary vascular changes
- (C) Infective endocarditis
- (D) Aortic regurgitation

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109. A neonate has cyanosis, pulmonary oligemia, and a normal cardiac shadow. What could be the diagnosis?

- (A) Tetralogy of Fallot
- (B) Pulmonary atresia
- (C) Transposition of great vessels
- (D) Ebstein's anomaly

• • •

110. A 5 year old child has anaemia with an increased reticulocyte count. The peripheral smear shows target cells and normoblasts. The patient's younger brother suffers from the same condition. What investigation should be performed?

- (A) Hb electrophoresis
- (B) Bone marrow biopsy
- (C) Osmotic fragility test
- (D) Chromosomal analysis

• • •

111. A 10 month old child presents with weakness, coarse facial features, and a normal ECG. What is the likely diagnosis?

- (A) Hurler syndrome
- (B) Hunter syndrome
- (C) Glycogen storage disorder
- (D) Phenylketonuria

• • •

112. A young boy has retarded physical and mental development. X-rays reveal fragmentation of the epiphyses and the presence of wormian bones. What is the diagnosis?

- (A) Hypopituitarism
- (B) Hypothyroidism
- (C) Hypogonadism
- (D) Scurvy

• • •

113. Injection of hypotonic saline into the carotid artery causes activation of the hypothalamus via which of the following?

- (A) Medial nucleus of the hypothalamus
- (B) Supraoptic nucleus of the hypothalamus
- (C) Preoptic nucleus of the hypothalamus
- (D) Paraventricular nucleus of the hypothalamus

• • •

114. Respiratory physiology of a newborn is different from that of an adult by all of the following EXCEPT

- (A) Increased oxygen demand of the newborn
- (B) Decreased FRC in the newborn
- (C) Adult Hb has decreased affinity for oxygen
- (D) Total lung volume is small/decreased in the newborn

• • •

115. What is the mechanism by which hyperventilation may cause muscle spasm?

- (A) Decreased calcium
- (B) Decreased carbon dioxide
- (C) Decreased potassium
- (D) Decreased sodium

• • •

116.

Which combination of the following statements about presynaptic inhibition is TRUE?

- a. Axoaxonal synapse mediated
- b. Prolongs IPSP
- c. Prolonged by anaesthesia
- d. Not affected by pharmacological agents
- e. It affects motor endplate potential
- f. Decreased by strychnine
- g. Decreased by picrotoxin

- (A) a, d, f
- (B) b, e, f
- (C) a, c, f
- (D) a, c, g

• • •

117. What is NOT true with regard to semen analysis?

- (A) Abstinence for 6 weeks provides the best sample
- (B) Sperm motility is a good indicator of sperm quality
- (C) Collection should be at the site of analysis
- (D) Absence of fructose may indicate a blocked ejaculatory duct or lack of seminal vesicles

• • •

118. What is the median of this set of values: 2, 5, 7, 10, 10, 15, 20?

- (A) 2
- (B) 10
- (C) 15
- (D) 20

• • •

119. What can be true regarding the coefficient of correlation between infant mortality rate (IMR) and economic status?

- (A) $r = +1$
- (B) $r = -1$
- (C) $r = +0.22$
- (D) $r = -0.8$

• • •

120. Which is best in order to make a comparison between two populations?

- (A) Standardised mortality rate
- (B) Disease specific death rate
- (C) Proportional mortality rate
- (D) Age specific death rate

• • •

121. Which is the best index for burden of disease?

- (A) Case fatality rate
- (B) Disability adjusted life years
- (C) Dependence rate
- (D) Morbidity data

- - -

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122. How much ethinyl estradiol does the new low dose oral contraceptive pill contain? (in micrograms)

- (A) 20
- (B) 25
- (C) 30
- (D) 35

...

123. Among 100 women with average Hb of 10 gm%, the standard deviation was 1. What is the standard error?

- (A) 0.01
- (B) 0.1
- (C) 1
- (D) 10

...

124. In a particular trial, the association of lung cancer with smoking is found to be 40% in one sample and 60% in another. What is the best test to compare the results?

- (A) Chi square test
- (B) Fischer test
- (C) Paired t test
- (D) ANOVA test

...

125. How much of the sample is included in 1.95 SD?

- (A) 99%
- (B) 95%
- (C) 68%
- (D) 65%

• • •

126. If the correlation of height with age is given by the equation $y = a + bx$, what would be the nature of the graph?

- (A) Straight line
- (B) Parabola
- (C) Hyperbola
- (D) Sigmoid curve

• • •

127. What is NOT true about a case control study?

- (A) It gives attributable risk
- (B) It is less expensive
- (C) It involves fewer subjects
- (D) It provides quick results

• • •

128. In a town of 36,000 people, there are 1200 live births, and 60 infant deaths. What is the IMR?

- (A) 50
- (B) 25
- (C) 10
- (D) 5

— — —

...

129. At what point in time is the population assessed for calculation of the crude death rate?

- (A) 1st January
- (B) 1st May
- (C) 1st July
- (D) 31st December

...

130. Which of these is NOT useful in the prevention of KFD?

- (A) Vaccination
- (B) Deforestation
- (C) Prevention of roaming cattle
- (D) Personal protection

...

131. A study was undertaken to assess the effect of a drug in lowering serum cholesterol levels. 15 obese women and 10 non-obese women formed the 2 limbs of the study. Which test would be useful to correlate the results obtained?

- (A) Unpaired t test
- (B) Paired t test
- (C) Chi square test
- (D) Fischer test

...

132. The incidence of carcinoma cervix in women with multiple sexual partners is 5 times the incidence seen in those with a single partner. Based on this, what is the attributable risk?

- (A) 20%
- (B) 40%
- (C) 50%
- (D) 80%

• • •

133. What is the best determinant of the health status of a country?

- (A) Couple protection rate
- (B) IMR
- (C) MMR
- (D) Crude birth rate

• • •

134. Which of these is NOT a component of the Human Development Index (HDI)?

- (A) Life expectancy at age one
- (B) Educational level
- (C) Per capita income
- (D) Infant Mortality Rate (IMR)

• • •

135. Which of these is NOT a component of the Physical Quality of Life Index (PQLI)?

- (A) Infant Mortality Rate (IMR)
- (B) Life expectancy at one year
- (C) Maternal Mortality Rate (MMR)
- (D) Literacy rate

• • •

136. A study of blood pressure (BP) is done on 100 healthy individuals aged 25-27 years. The result is a normal distribution with median BP of 120 mm Hg. What percentage of the subjects will have a BP reading higher than 120?

- (A) 25
- (B) 50
- (C) 75
- (D) 100

• • •

137. In which of these conditions is post-exposure prophylaxis NOT useful?

- (A) Measles
- (B) Rabies
- (C) Pertussis
- (D) Hepatitis B

• • •

138. Hb of less than what value is the cut-off used by WHO guidelines to label an infant under 6 months of age as being anemic?

- (A) 100 g/L
- (B) 105 g/L
- (C) 110 g/L
- (D) 115 g/L

• • •

139. What are the amounts of calories and protein received by a pregnant woman from the anganwadi worker?

- (A) 300 calories, 15 gm protein
- (B) 500 calories, 15 gm protein
- (C) 300 calories, 25 gm protein
- (D) 500 calories, 25 gm protein

• • •

140. The incidence of malaria in an area is 20, 20, 50, 56, 60, 5000, 678, 898, 345, 456. Which of these methods is the best to calculate the average incidence?

- (A) Arithmetic mean
- (B) Geometric mean
- (C) Median
- (D) Mode

• • •

141. A 6 year old child has a history of birth asphyxia. The child does not communicate well, shows slow mental and physical growth, does not mix with other people, has limited interests, and gets wildly agitated if disturbed. What is the diagnosis?

- (A) Autistic disorder
- (B) Histrionic personality
- (C) ADHD (Attention Deficit Disorder)
- (D) Schizophrenia

• • •

142. A man feels that his nose is too long, though his friends feel otherwise. He has consulted three plastic surgeons, but all of them have refused to treat him. What condition does he suffer from?

- (A) Hypochondriasis
- (B) Somatisation
- (C) Munchausen syndrome
- (D) Delusional disorder

• • •

143. In a patient with no significant previous history, no history of any drug intake, and a normal ECG, what is the likely cause of palpitations, sweating, and a feeling of impending doom, with each episode lasting about 10 minutes?

- (A) Hysteria
- (B) Panic attack
- (C) Agoraphobia
- (D) Generalised anxiety disorder

• • •

144. A person on treatment with lithium for a mood disorder presents with seizures, increased reflexes, and epileptic fits. The patient also has a history of severe gastroenteritis. On investigation, the serum lithium level was found to be 1.95 mEq/L. This patient is most likely suffering from

- (A) Severe dehydration
- (B) Lithium toxicity
- (C) Epilepsy
- (D) Manic episode

• • •

145. A 25 year old female was brought to the casualty after she allegedly attempted suicide, with her wrists slashed. She has a past history of difficulty in maintaining interpersonal relationships and also recurrent mood fluctuation episodes. What is the most likely diagnosis?

- (A) Depression
- (B) Borderline personality disorder
- (C) Histrionic personality
- (D) Schizophrenia

• • •

146. A 70 year old man presents with a history of prosopagnosia, loss of memory, and third person hallucinations since 1 month. On examination, deep tendon reflexes are increased, and the mini mental state examination score is 20/30. What is the most likely diagnosis?

- (A) Dissociated dementia
- (B) Schizophrenia
- (C) Multi infarct dementia
- (D) Alzheimers disease

• • •

147. What is the investigation of choice for a parameningeal rhabdomyosarcoma?

- (A) CECT
- (B) CSF cytology
- (C) MRI
- (D) SPECT

• • •

148. What is the investigation of choice for neuroendocrine tumors?

- (A) Endoscopic USG
- (B) SPECT
- (C) Radionuclide study
- (D) MRI

• • •

149. What is the investigation of choice for screening renovascular hypertension with bilateral renal artery stenosis?

- (A) Duplex Doppler study
- (B) Captopril enhanced radionuclide scan
- (C) USG
- (D) MR angiography

• • •

150. What is the next investigation to be done in a case with recurrent hemoptysis, normal chest X-ray, and production of purulent sputum?

- (A) Spiral CT
- (B) HRCT
- (C) MRI
- (D) Bronchoscopy

• • •

151. What is the diagnosis in a woman who has scarring alopecia, thinning of nails, and hyperpigmented patches over the leg?

- (A) Lichen planus
- (B) Psoriasis
- (C) Secondary syphilis
- (D) Dermatophytosis

• • •

152. Acne vulgaris involves which one of the following?

- (A) Pilosebaceous glands
- (B) Eccrine glands
- (C) Apocrine glands
- (D) Sebaceous glands

• • •

153. A patient diagnosed with psoriasis was put on treatment with high dose dexamethasone for 2 weeks. The patient stopped treatment after which he develops high-grade fever and generalized pustular lesions all over his body. What is the most likely diagnosis?

- (A) Septicaemia
- (B) Drug reaction
- (C) Pustular psoriasis
- (D) Secondary bacterial infection

• • •

154. What is the treatment of choice for hyperparathyroidism?

- (A) Removal of the hyperplastic gland
- (B) Removal of all 4 glands
- (C) Radical parathyroidectomy
- (D) 3 and 1/2 parathyroidectomy

• • •

155. Which gastric surgery results in the least degree of bilious vomiting, dumping, and diarrhea?

- (A) Truncal vagotomy and pyloroplasty
- (B) Truncal vagotomy and antrectomy
- (C) Highly selective vagotomy (HSV)
- (D) Gastrojejunostomy

• • •

156. A 20-year-old man presents with massive hematemesis. He gives a history of taking some drugs for fever over the past 2 weeks. What is the likely diagnosis?

- (A) Acute peptic ulceration due to NSAIDs
- (B) Erosive gastritis
- (C) Esophageal erosion
- (D) Esophageal varices

• • •

157. What is NOT true in a case of urethral injury?

- (A) Rare in women
- (B) Immediate catheterisation is indicated
- (C) Posterior urethral injury occurs in fracture of the pelvis
- (D) Blood at the urinary meatus is diagnostic

• • •

158. What is the likely source of hematuria that has been persisting for the past 3 days, with red cell casts evident on urinalysis?

- (A) Bladder
- (B) Urethra
- (C) Kidney
- (D) Ureter

• • •

159. What is the treatment of choice for pleomorphic adenoma?

- (A) Superficial parotidectomy
- (B) Enucleation
- (C) Deep parotidectomy
- (D) Radical parotidectomy

• • •

160. What is the most effective treatment for a Warthin's tumor?

- (A) Superficial parotidectomy
- (B) Deep parotidectomy
- (C) Enucleation
- (D) Radiotherapy

• • •

161. What is the treatment for a stage I testicular tumor?

- (A) High orchidectomy
- (B) High orchidectomy plus radiotherapy
- (C) Scrotal orchidectomy
- (D) Bilateral orchidectomy

• • •

162. Ameloblastoma of the mandible is most likely to involve which of the following locations?

- (A) At symphysis menti
- (B) Molar region of mandible
- (C) In relation to upper 2nd molar
- (D) In relation to incisors

• • •

163. What is the most common tumor involving the mandible?

- (A) Osteosarcoma
- (B) Ameloblastoma
- (C) Lymphoma
- (D) Squamous cell carcinoma

• • •

164. What is the treatment for a cancer of the lateral border of the tongue with lower neck lymph node secondaries?

- (A) Radical neck dissection
- (B) Supraomohyoid dissection
- (C) Suprahyoid neck dissection
- (D) Teletherapy

• • •

165. What is the treatment of choice for an old man who has reflux of foul smelling food?

- (A) Cricopharyngeal myotomy
- (B) Sac removal
- (C) Laser evaporation
- (D) Myotomy with sac excision

• • •

166. What is the treatment for a 4 x 6 mm dysgerminoma in a 12 year old girl?

- (A) Right cystectomy
- (B) Right oophorectomy
- (C) TAH with BSO
- (D) Bilateral oophorectomy

• • •

167. What is NOT true about a varicocele?

- (A) More common on the right side
- (B) Associated with infertility
- (C) Left varicocele can be a late sign of a tumor in an elderly man
- (D) 10% cases are bilateral

• • •

168. What is NOT true about torsion of the testes?

- (A) Absence of flow on Doppler clinches diagnosis
- (B) Presence of pyuria assists the diagnosis
- (C) The opposite side testis should be fixed
- (D) Raising the testis worsens the pain

• • •

169. What is NOT true about congenital PUJ (pelviureteric junction) obstruction?

- (A) It is due to compression by an aberrant vessel rather than due to intrinsic causes
- (B) Retrograde pyelography is useful to find the site of obstruction
- (C) Whitaker's formula is useful for classification and treatment assessment
- (D) Antenatal diagnosis is possible

• • •

170. What is best for the diagnosis of a firm, hard, mobile nodule in the right breast of a post menopausal woman?

- (A) FNAC
- (B) Excision biopsy
- (C) Mammography
- (D) Needle biopsy

• • •

171. Which should NOT be done in a testicular tumor?

- (A) High inguinal orchidectomy
- (B) High inguinal orchidectomy with chemotherapy
- (C) High inguinal orchidectomy and RT
- (D) Transcrotal biopsy for tissue diagnosis

• • •

172. What is NOT likely to be the cause of stridor occurring 2 hours after a thyroidectomy?

- (A) Hypocalcemia
- (B) Wound hematoma
- (C) Tracheomalacia
- (D) RLN injury bilaterally

• • •

173. What is the likely cause of central cyanosis and oligemic lung fields in a neonate with a normal sized heart?

- (A) Pulmonary atresia
- (B) TOF
- (C) TGA
- (D) VSD

- - -

• • •

174. A child has fever, jaundice, clay colored stools, and biopsy suggests giant cell hepatitis. What is the clinical diagnosis?

- (A) Viral hepatitis
- (B) Neonatal jaundice and EHBA
- (C) Neonatal jaundice and IHBA
- (D) Non cirrhotic portal fibrosis

• • •

175. What is the diagnosis in a case of a 30 year old male with jaundice, unconjugated bilirubinemia, increased urine urobilinogen, negative urine bilirubin, normal direct bilirubin, and normal alkaline phosphatase?

- (A) Hemolytic jaundice
- (B) Viral hepatitis
- (C) Obstructive jaundice

• • •

176. What is the diagnosis in a 65 year old patient with fever, flank pain, and calculi with fat densities?

- (A) Xanthogranulomatous pyelonephritis
- (B) Renal abscess
- (C) Chronic pyelonephritis
- (D) Tuberculous kidney

• • •

177. What is the likely diagnosis in a case with renal calcification, irregular bladder wall outline, and hematuria?

- (A) Tuberculosis
- (B) Schistosomiasis
- (C) Amyloidosis
- (D) Hunner's cystitis

• • •

178. In India, sentinel surveillance is done for the following diseases/conditions, EXCEPT

- (A) Hepatitis B
- (B) Diarrhea
- (C) Acute Flaccid Paralysis
- (D) HIV

• • •

179. What is NOT true with regard to 'triple' stones?

- (A) Struvite stones are composed of triple phosphate
- (B) They are called staghorn calculi when they are formed in the renal pelvis
- (C) Form in acidic urine
- (D) Associated with UTI

• • •

180. A tumor/mass lesion of the kidney extends into the IVC, with Gerota's fascia intact. All the following are true, EXCEPT

- (A) IVC invasion is a contraindication for surgery
- (B) Chest X-ray to rule out pulmonary metastases
- (C) Pre-op radiotherapy is not indicated
- (D) Pre-op biopsy is not indicated

• • •

181. Which of these is a criterion for conservative treatment in a ureteric calculus?

- (A) Infection and hydronephrosis present
- (B) Size under 6 mm
- (C) No movement for 2 weeks
- (D) Highly symptomatic

• • •

182. What is NOT true about a urinary bladder calculus?

- (A) Primary stones rare in Indian children
- (B) Transurethral removal is possible
- (C) Most are radio opaque
- (D) KUB clinches the diagnosis

• • •

183. What investigation should be done for a prostatic nodule in a 60 year old man?

- (A) Expressed prostatic secretion analysis
- (B) CT scan pelvis
- (C) Transrectal ultrasound (TRUS)
- (D) MRI

- - -

• • •

184. What is NOT true about carcinoma penis?

- (A) Circumcision any time before puberty is 100% protective
- (B) Erythroplasia of Queyrat is premalignant
- (C) Occurs in unhygienic conditions
- (D) Presents with inguinal node enlargement in 50% of the cases

• • •

185. Which type of malignancy occurs in longstanding multinodular goitre?

- (A) Papillary
- (B) Follicular
- (C) Anaplastic
- (D) Medullary

• • •

186. Which condition may feature pulsatile varicose veins?

- (A) Tricuspid regurgitation
- (B) Deep vein thrombosis
- (C) Klippel-Trenaunay syndrome
- (D) Right ventricular failure

• • •

187. What may cause local gigantism with varicosities?

- (A) Arteriovenous (AV) fistulae
- (B) Deep vein thrombosis
- (C) Acromegaly
- (D) Osteosarcoma

• • •

188. All the following are used as sclerosing agents EXCEPT

- (A) Alcohol
- (B) Acetic acid
- (C) Crysolate
- (D) Polidocanol

• • •

189. Pelviureteric obstruction on the left side in a 33 year old male who presents with fever and infection. All the following are correct EXCEPT

- (A) Dismembered pyeloplasty is the treatment of choice
- (B) Endoscopic pyeloplasty is contraindicated
- (C) Most common cause is an aberrant vessel
- (D) Tuberculosis can be a cause

• • •

190. A 60 year old hypertensive patient comes with abdominal pain and fusiform dilatation of the abdominal aorta. What could be the most probable etiology?

- (A) Marfan's syndrome
- (B) Syphilis
- (C) Atherosclerosis
- (D) Cystic medial necrosis

• • •

191. Which of these is most often secreted by a pheochromocytoma?

- (A) Epinephrine
- (B) Norepinephrine
- (C) Dopamine
- (D) Serotonin

• • •

192. In a surgery ward, what is the best method of prevention of post op wound infection in patients, and hence preventing their spread to other patients?

- (A) Hand washing prior to and in between patient examination and dressings
- (B) Fumigation of the ward
- (C) Cleaning of the floor with Ceramide
- (D) Vancomycin prophylaxis

• • •

193. What is the preferred treatment for a solitary thyroid nodule?

- (A) Hemithyroidectomy
- (B) Total thyroidectomy
- (C) Subtotal thyroidectomy
- (D) Enucleation

• • •

194. All of the following pass behind the ischial spine EXCEPT?

- (A) Obturator nerve
- (B) Pudendal nerve
- (C) Internal pudendal vessels
- (D) Nerve to obturator internus

• • •

195. Injury to which nerve during a herniorrhaphy may cause paresthesia at the root of the scrotum and base of the penis?

- (A) Ilioinguinal
- (B) Pudendal
- (C) Genitofemoral
- (D) Iliohypogastric

• • •

196. Which of these statements regarding the kidney is NOT correct?

- (A) Right kidney is preferred to the left for transplantation
- (B) Right kidney is at a lower level than the left
- (C) Right kidney is related to the duodenum in the anteromedial aspect
- (D) Right renal vein is shorter than the left

• • •

197. All of the following enzyme deficiencies, except one, may cause lens opacities and mental retardation in a child. Which one is the exception?

- (A) Galactokinase
- (B) Galactose UDP 1 transferase
- (C) Galactose 4 epimerase
- (D) Lactase

• • •

198. Dietary fibers are degraded by colonic bacteria to form which of the following?

- (A) Butyrates
- (B) Glycerol
- (C) Sucrose
- (D) Free radicals

• • •

199. What is the possible cause for gout in a patient who has a glucose-6-phosphatase deficiency?

- (A) Increased synthesis of pentoses
- (B) Increased accumulation of sorbitol
- (C) Increased synthesis of glycerol
- (D) Decreased function of Krebs cycle

• • •

200. Consider a chain reaction with the sequence S1 to S2 to S3 to S4, where S4 is converted to P1 and P1 is converted to P2. The enzymes catalyzing the three reactions S1 to S2, S2 to S3, and S3 to S4 are EA, EB, and EC respectively. Enzyme EA is under positive feedback and enzyme EB is under negative feedback. If enzyme EC is absent, which of the following is true?

- (A) S1 accumulates
- (B) S2 accumulates
- (C) P1 accumulates
- (D) P2 accumulates