Department of Pathology
Azra Naheed Medical College
Send up examination 2019
MBBS 4th Year
Special pathology

Time Allowed: 1 hour Total Marks 60

Attempt all questions

All Questions carry equal marks.

1. A 45-year-old man presents with abdominal pain and hypertension. On physical examination, he is found to have an abdominal mass. Further workup confirms yellowish plaques in vessels. Which of the following vascular complications is associated with this condition?
   A. Arteriovenous fistula
   B. Atherosclerotic aneurysm
   C. Berry aneurysm
   D. Dissecting aneurysm
   E. Luetic aneurysm

2. A 50-year-old man has a 2-year history of angina pectoris that occurs during exercise. On physical examination, his blood pressure is 135/75 mm Hg, and his heart rate is 79/min and slightly irregular. Coronary angiography shows a fixed 75% narrowing of the anterior descending branch of the left coronary artery. He has several risk factors for atherosclerosis. Which of following is not a risk factor for atherosclerosis?
   A. Diabetes
   B. Hypertension
   C. Smoking
   D. Increasing age
   E. Aspirin use

3. A 10-year-old boy presents with migratory polyarthritis involving several large joints, fever and malaise. Physical examination reveals a new heart murmur and friction rub on auscultation, and a painless nodule is detected on the extensor surface of the elbow. He had a severe sore throat approximately 2 weeks ago, apparently recovering without antibiotic therapy. The antistreptolysin O (ASO) titer is elevated. Which of the following describes the most likely outcome for this patient?

A. Development of mitral valve stenosis over many months to years
B. Development of mitral valve stenosis over the next few months
C. Increasing severity of the current symptoms and findings over the next few decades
D. Persistence of the current symptoms and signs over the patient's lifetime
E. Total recovery after 1-2 months with no further complications or sequelae

4. A 45 years old male developed sudden chest pain which was radiating to left arm associated with sweating vomiting. He was diagnosed with Inferior wall MI. Which artery is most likely involved in its pathogenesis?
   A. Ascending aortic dissection
   B. Left anterior descending arterial plaque rupture
   C. Left circumflex arterial vasculitis
   D. Right coronary artery
   E. None of above

5. A 56-year-old woman presents with dyspnea on exertion, orthopnea, and pulmonary edema. She also presents with severe dizziness and syncope, fatigue, weight loss, and arthralgia. After undergoing several tests, she is diagnosed with a primary heart tumor that is causing a "ball-valve obstruction" of her mitral valve. Which of the following is the most likely tumor?
   A. Fibroma
   B. Leiomyoma
   C. Lipoma
   D. Myxoma
   E. Rhabdomyoma

6. A patient with severe anemia has a peripheral blood smear with oval macrocytes, hyper segmented neutrophils, and decreased platelets. The most likely cause of the anemia is:
   A. A red cell membrane protein defect.
   B. An amino acid substitution in the β-globin chain.
   C. Iron deficiency.
   D. Marrow hypoplasia.
   E. Vitamin B12 or folate deficiency.

7. A 23-year-old African-American man with a history since early childhood of severe anemia requiring many transfusions has non-healing leg ulcers and recurrent periods of abdominal and chest pain. These signs and symptoms are most likely to be associated with which of the following laboratory abnormalities?
   A. Decreased erythropoietin

B. Increased erythrocyte osmotic fragility
C. Schistocytes
D. Sickle cells on peripheral blood smear
E. Teardrop-shaped cells

8. A 45-year-old woman presents with marked splenomegaly. Her leukocyte count is increased to 300,000/pL. The differential count reveals the presence of small numbers of myeloblasts and promyelocytes, with a predominance of myelocytes, metamyelocytes, bands, and segmented neutrophils. Basophils are also increased in number, as are platelets. The patient is not anemic. Leukocyte alkaline phosphatase is decreased. Which of the following describes a major characteristic of this disorder?
A. 9;22 translocation
B. Expansion of mature B lymphocytes within multiple lymph nodes
C. Hypogammaglobulinemia
D. Neoplastic cells exhibiting hair-like filamentous projections
E. Peak incidence at 65 years of age

9. A 70-year-old man presents with severe bone pain and frequent respiratory infections. Serum protein electrophoresis demonstrates an M protein spike in the gamma region. Radiographs of the skull, long bones, and spine demonstrate multiple "punched-out" lesions, and bone marrow aspiration demonstrates large numbers of neoplastic plasma cells. Which of the following statements is true of this disorder?
A. Although this patient presents at 70 years of age, the average age of presentation is 50 years of age.
B. Renal insufficiency is rare in myeloma.
C. The M spike is most often an IgA.
D. The M spike is most often monoclonal in nature.
E. This disorder is the most common T-cell neoplasm.

10. A 9-year-old boy has developed prominent bruises on his extremities over the past week. On physical examination, he has ecchymoses and petechiae on his arms and legs. Laboratory studies show hemoglobin, 13.8 g/dL; hematocrit, 41.9%; MCV, 93 µm3; platelet count, 11,300/mm3; and WBC count, 7720/mm3. He had respiratory syncytial virus pneumonia 3 weeks ago. His condition improves with corticosteroid therapy. Which of the following is most likely diagnosis?
A. Bone marrow aplasia
B. Immune thrombocytopenic purpura
C. Vitamin C deficiency
D. Von Willebrand factor metalloproteinase deficiency

E. Aplastic anemia

11. A 48-year-old man chronic smoker past 20 years, barrel snaped chest, has gradually increasing dyspnea and a 4-kg weight loss over the past 2 years. Auscultation of the chest shows decreased breath sounds. A chest radiograph shows bilateral hyperlucent lungs. Pulmonary function tests show reduced FEV1/FVC ratio. Which of the following is most likely to contribute to the pathogenesis of his disease?
    A. Abnormal epithelial cell chloride ion transport
    B. Decreased ciliary motility with irregular dynein arms
    C. Infection by mycobacterium tuberculosis
    D. Macrophage recruitment and release of interferon-γ
    E. Release of elastase from neutrophils

12. Which of following inhaled pollutant is most likely associated risk factor & has strong synergic effect with smoking for Mesothelioma ?
    A. Asbestos
    B. Beryllium
    C. Carbon
    D. silica
    E. Sulfur dioxide

13. Which of the following statement regarding pneumonia is incorrect;
    A. Community acquired pneumonia caused by Strept. pneumoniae
    B. Hospital acquired pneumonia caused by gram positive rods
    C. Atypical pneumonia caused by Mycoplasma pneumoniae
    D. Aspiration pneumonia caused by partly chemicals and partly by anerobic bacteria
    E. Choronicpneumonia caused by Nocardia and actinomyces

14. A 64-year-old man, who is a chain-smoker, cough and a 5kg weight loss over the past 3 months. Physical examination shows clubbing of the fingers. A chest radiograph shows no hilar lymphadenopathy, but there is cavitation within a 3-cm lesion near the right hilum. Lab shows raised calcium level. Bronchoscopy shows a lesion almost occluding the right main bronchus. Surgery is offered for this patient. Which of the following neoplasms is most likely to be present in this patient?
    A. Adenocarcinoma in situ
    B. Large cell anaplastic carcinoma
    C. Metastatic renal cell carcinoma
    D. Small cell anaplastic carcinoma
    E. Squamous cell carcinoma

15. A 57-year-old man has had a cough and pleuritic chest pain working in sand blast factory. On physical examination some crackles are audible over the left lower lung on auscultation. A chest radiograph shows an ill-defined area of opacification in the left lower lobe and pleura. Which of the following neoplasm is most likely to be present in this patient?

A. Adenocarcinoma in situ
B. Large cell anaplastic carcinoma
C. Malignant Mesothelioma
D. Metastatic breast carcinoma
E. Squamous cell carcinoma

16. The mother of a 4-year-old child notices blood when laundering his underwear. Physical examination reveals a rectal mass. On proctoscopy, there is a smooth-surfaced, pedunculated, 1.5-cm polyp. It is excised and microscopically shows cystically dilated crypts filled with mucin and inflammatory debris, but no dysplasia. What is the most likely diagnosis?

A. Familial adenomatous polyposis
B. Gardner syndrome
C. Juvenile polyp
D. Lynch syndrome
E. Peutz-Jeghers syndrome

17. A 67-year-old woman has experienced severe nausea, vomiting, early satiety, and a 9-kg weight loss over the past 4 months. On physical examination, she has muscle wasting. Upper gastrointestinal endoscopy shows erythematous, cobblestone appearance of stomach. Gross examination revealed leather bottle appearance of stomach. Which of the following is most likely to be found on histologic examination of a gastric biopsy specimen?

A. Chronic atrophic gastritis
B. Primary gastric lymphoma
C. Gastrointestinal stromal tumor
D. Granulomatous inflammation
E. Signet ring cell adenocarcinoma

18. A 70-year-old man presents with fatigue, weight loss, abdominal pain, and off and on occult blood in the stools. A complete blood count reveals anemia with hemoglobin of 10.7 g/dL. A colonoscopy and colon biopsy reveal adenocarcinoma. Which of the following is the most likely predisposing lesion that led to this condition?

A. FAP syndrome
B. Hyperplastic polyp
C. Long-standing ulcerative colitis

D. Peutz-Jeghers polyp

E. Tubular adenoma

19. A 40-year-old woman presents with a painless mass anterior to her left ear. The mass has been slowly enlarging over the past year. The mass is firm and nontender. Computed tomography reveal a well-circumscribed, homogeneous mass within the left parotid gland Biopsy reveals anastomosing strands of stellate and fusiform epithelial cells embedded in a myxoid stroma. Which of the following is a characteristic of the lesion?

A. It is also called papillary cystadenoma lymphomatosum.
B. It is most often localized to the submandibular gland
C. It is the most common benign salivary gland tumor.
D. Perineural invasion is the commonest association
E. Surgical resection should not be performed, because this condition is usually already metastatic on diagnosis.

20- A 2-year-old girl is being evaluated for vomiting, diarrhea, and failure to thrive. Laboratory studies revealed the presence of antiendomysial autoantibodies. What do you expect to see from a small intestinal biopsy of this patient.

A. villous hypertyrophy and crypts elongation
B. villous hypertyrophy and falttening
C. villous hypertyrophy and raised intraepithelial lymphocytes
D. villous flattening and crypts elongation
E. villous flattening and crypts flattening

21- A 60-year-old Caucasian man with a 5-year history of gastroesophageal reflux disease (GERD) presents with persistent pyrosis (heartburn) and acid regurgitation. An esophagogastroduodenoscopy is performed to screen for Barrett esophagus, a well-known complication of longstanding GERD. Which of the following is true of Barrett esophagus?

A. A biopsy will show a histologic finding of columnar-to-squamous metaplasia.
B. It is a known precursor of adenocarcinoma of the esophagus.
C. It is a known precursor of carcinoma of the stomach.
D. It is a known precursor of squamous cell carcinoma of the esophagus.
E. The most common location is the proximal (upper) third of the esophagus.

22- A young male ,20 years of age with family history of colonic polyposis presents for checkup and on colonoscopy has multiple polyps in colon for which colectomy was performed. Molecular analysis of his somatic cells will reveal mutation of which of following gene?

A. K-RAS mutation

B. HNPPC mutation
C. Development of Tp53 mutation
D. APC gene mutation
E. Mutations in the NOD2 gene

23- A 42-year-old man experiences malaise and increasing icterus for 2 weeks. Physical examination shows jaundice, but there are no other significant findings. Serologic test results are positive for IgM anti-HAV and negative for anti-HCV, HBsAg and IgM anti-HBc. Which of the following outcome is most likely to occur in this man?

A. Chronic active hepatitis
B. Complete recovery
C. Fulminant hepatitis
D. Hepatocellular carcinoma
E. Negative serologic test result

24- A 20-year-old primigravida gives birth at term following an uncomplicated pregnancy to a boy infant of normal weight and length. On examination no abnormalities are noted. Within the first week, the infant becomes mildly icteric. The infant receives phototherapy, and there is no more icterus after the second week of life. Which of the following mechanisms most likely led to this infant's icterus?

A. Atresia of the common bile duct
B. Congenital infection with cytomegalovirus
C. Inherited deficiency of a canalicular transporter
D. Low hepatic glucuronyl transferase activity
E. Maternally derived antibody-mediated hemolysis

25- Which of the following viral infections is lethal in pregnant females?

A. HDV
B. HBV
C. HAV infection
D. HCV infection
E. HEV

26- A 38-year-old man from Shanghai, China, has experienced fatigue and a 10-kg weight loss over the past 3 months. Physical examination yields no remarkable findings. Laboratory test results are positive for HBsAg and negative for antiHCV and anti-HAV. Abdominal CT scan shows a 10-cm solid mass in the left lobe of a nodular liver. A liver biopsy of the lesion is obtained and microscopically shows hepatocellular carcinoma. Which of the following is most likely responsible for the development of this lesion?

A. Co-infection with Clonorchis sinensis
B. Development of hepatic adenoma that accumulates mutations
C. Co-infection with Hepatitis D
D. Inherited mutation in the DNA mismatch repair genes
E. Ongoing infection with liver cell necrosis and Regeneration

27- A 54-year-old woman has a long history of chronic hepatitis B infection and has had increasing malaise for the past year. She was hospitalized 1 year ago because of upper gastrointestinal hemorrhage. Physical examination shows a firm nodular liver. Laboratory findings show a serum albumin level of 2.5 g/dL and prothrombin time of 28 seconds. Which of the following additional physical examination findings is most likely to be present in this woman?

A. Caput medusae
B. Diminished deep tendon reflexes
C. Distended jugular veins
D. Papilledema
E. Splinter hemorrhage

28- A 35 year old male who presented in the emergency with history recurrent abdominal pain and multiple admissions in medical ward with the same complain. His serum amylase was sent that showed 2200 u/L. which of the following are the predisposing factors for this condition.

A. α1-Antitrypsin deficiency
B. Chronic alcohol abuse and gall stones
C. Hepatitis E viral infection
D. Hereditary hemochromatosis
E. Primary sclerosing cholangitis

29- A 38-year-old woman has been feeling lethargic for 4 months. Laboratory findings show the serum creatinine level is 5.8 mg/dL, C3 hypocomplementemia, and the ANA test result is negative. Urinalysis shows 2+ blood and 1+ protein. A renal biopsy is done; microscopic examination shows hypercellular glomeruli and prominent ribbonlike deposits along the lamina densa of the glomerular basement membrane. Which of the following forms of glomerulonephritis is most likely to be present in this patient?

A. Chronic glomerulonephritis
B. Dense deposit disease
C. Membranous nephropathy
D. Postinfectious glomerulonephritis
E. Rapidly progressive glomerulonephritis

30- A 4-year-old girl has complained of abdominal pain for the past month. On physical examination, she is febrile, and palpation of the abdomen shows a tender mass on the right side. Abdominal CT scan shows a 12-cm, circumscribed, solid mass in the right kidney composed of triphasic pattern and WT1 mutation. What is the most likely diagnosis?

A. Angiomyolipoma
B. Interstitial cell tumor
C. Renal cell carcinoma
D. Transitional cell carcinoma
E. Wilms tumor

31- A 2-year-old boy has progressive peripheral edema and normal blood pressure. Laboratory examination finds decreased serum albumin, increased serum cholesterol, and normal BUN and creatinine levels. Examination of his urine finds massive proteinuria, lipiduria & albuminuria but no red blood cells are seen. A histologic section from a renal biopsy examined with a routine H&E stain is unremarkable, but electron microscopic examination finds flattening and fusion of the foot processes of the podocytes. What is the best diagnosis?

A. Diffuse proliferative glomerulonephritis (DPGN)
B. Heymann glomerulonephritis (HGN)
C. Membranoproliferative glomerulonephritis (MPGN)
D. Membranous glomerulopathy (MGN)
E. Minimal change disease (MCD)

32- Histologic sections of a kidney reveal patchy necrosis of epithelial cells of both the proximal and distal tubules with flattening of the epithelial cells, rupture of the basement membrane (tubulorrhexis), and marked interstitial edema. Acute inflammatory cells are not seen. Which of the following is the most likely diagnosis?

A. Acute pyelonephritis
B. Acute tubular necrosis
C. Chronic glomerulonephritis
D. Chronic pyelonephritis
E. Diffuse cortical necrosis

33- Which of the following histologic changes is most likely to be seen when examining a mucosal biopsy of the urinary bladder from an individual with acute cystitis due to infection with E coli?

A. An infiltrate of lymphocytes and plasma cells
B. An infiltrate of neutrophils
C. Inflammation with eosinophils

D. Noncaseating granulomas
E. Sheets of macrophages with granular cytoplasm

34- A 71-year-old, previously healthy man comes to his physician for a routine health examination. On palpation, there is a nodule in his normal-sized prostate. Laboratory studies show a serum prostate-specific antigen (PSA) level of 17 ng/mL. A routine urinalysis shows no abnormalities. Which of the following histologic findings is most likely to be found in a subsequent biopsy specimen of his prostate?

A. Acute prostatitis
B. Adenocarcinoma
C. Chronic abacterial prostatitis
D. Nodular hyperplasia
E. Prostatic intraepithelial neoplasia

35- The mother of a 2-year-old boy notices that he has had increasing asymmetric enlargement of the scrotum over the past 6 months. On physical examination, there is a wellcircumscribed, 2.5-cm mass in the left testis. A left orchiectomy is performed, and histologic examination of this mass shows sheets of cells and ill-defined glands composed of cuboidal cells, some of which contain eosinophilic hyaline globules. Immunohistochemical staining shows α-fetoprotein (AFP) in the cytoplasm of the neoplastic cells. What is the most likely diagnosis?

A. Choriocarcinoma
B. Leydig cell tumor
C. Seminoma
D. Teratoma
E. Yolk sac tumor

36- A 59-year-old man notices gradual enlargement of the scrotum over the course of 1 year. The growth is not painful, but produces a sensation of heaviness. Physical examination shows no lesions of the overlying scrotal skin and no obvious masses, but the scrotum is enlarged, boggy, and soft bilaterally. The transillumination test result is positive. What is the most likely diagnosis?

A. Elephantiasis
B. Hydrocele
C. Orchitis
D. Seminoma
E. Varicocele

37- A healthy 30-year-old woman comes to the physician for a routine health maintenance examination. No abnormalities are found on physical examination. A screening Pap smear shows cells consistent with a low-grade squamous intraepithelial lesion (LSIL). Subsequent cervical biopsy specimens confirm the presence of cervicalintraepithelial neoplasia (CIN). Which of the following risk factors is most likely related to her Pap smear findings?

A. Diethylstilbestrol (DES) exposure
B. Multiple sexual partners
C. Oral contraceptive use
D. Prior treatment for a malignancy
E. Vitamin B12 (cobalamin) deficiency

38- A 50-year-old woman has had increasing abdominal enlargement for the past 6 months. On physical examination, there is abdominal distention with a fluid wave. A pelvic ultrasound scan shows bilateral cystic ovarian masses, On gross examination, the excised masses are unilocular cysts filled with clear fluid, and papillary projections extend into the central lumen of the cyst. Microscopic examination shows that the papillae are covered with atypical cuboidal cells that invade underlying stroma. Psammoma bodies are present. What is the most likely diagnosis?

A. Endometrioid tumor
B. Serous Cystadenocarcinoma
C. Dysgerminoma
D. Mucinous cystadeno CA
E. Mature cystic teratoma

39- A 23-year-old woman, G3, P2, has a spontaneous abortion at 15 weeks' gestation. The male fetus is small for gestational age and is malformed, with syndactyly of the third and fourth digits of each hand. The placenta also is small, and shows 0.5-cm grapelike villi scattered among morphologically normal villi. Chromosomal analysis of placental tissue is most likely to show which of the following karyotypes?

A. 45,X
B. 46,XX
C. 47,XX
D. 47,XY,+18
E. 69,XXY

40- A 68-year-old postmenopausal woman presents for evaluation of the recent onset of vaginal bleeding, and a diagnosis of type I endometrial carcinoma is made on endometrial biopsy. Which of the following is a risk factor for this condition?

A. Endometriosis

B. Multiparity
C. Salpingitis
D. Early sexual activity with multiple partners
E. Obesity

41- A 24-year-old woman is breastfeeding 3 weeks after giving birth to a normal term infant. She notices fissures in the skin around her left nipple. Over the next 3 days, a 5-cm region near the nipple becomes erythematous and tender. Purulent exudate from a small abscess drains through a fissure. Which of the following organisms is most likely to be cultured from the exudate?
A. Candida albicans
B. Lactobacillus acidophilus
C. Listeria monocytogenes
D. Staphylococcus aureus
E. Viridans streptococci

42- A 25-year-old Jewish woman sees her physician after finding a lump in her right breast. On physical examination, a 2-cm, firm, non-movable mass is palpated in the upper outer quadrant. The family history indicates that the patient's mother, maternal aunt, and maternal grandmother have had similar lesions. Her 18-year-old sister has asked a physician to determine whether she is genetically at risk of developing a similar disease. A mutated gene encoding for which of the following is most likely to be found in her sister?
A. A.BRCA1
B. Estrogen receptor (ER)
C. HER2/neu
D. TP53
E. Progesterone receptor (PR)

43- A 30 year old woman with a history of trauma to her right breast complaints of a 3cm contusion that resolved within 3 weeks but after 1 month she felt a firm lump that persisted below the site of bruise. What is the diagnosis?
A. Fibroadenoma
B. Sclerosing adenosis
C. Fat necrosis
D. Ductal carcinoma in situ
E. Mammary duct ectasia

44- A 49 year old female is clinically suspected to have breast carcinoma. For her work up she undergoes a trucut biopsy on which immunohistochemistry is also performed. Staining for HER2 / neu is positive. Staining for ER & PR is negative. This profile makes her a candidate for which of the following adjuvant treatment?

A. Tamoxifen
B. Trastuzumab
C. Radiation therapy
D. Prednisone
E. Doxorubicin

45- A 35-year-old woman is seen 2 months after giving birth to a normal infant. She suffered severe cervical lacerations during delivery, resulting in hemorrhagic shock. Following blood transfusion and surgical repair, postpartum recovery has so far been uneventful. She now complains of continued amenorrhea after 6 months and loss of weight and muscle strength. Further investigations reveal hyponatremia, hyperkalemia and hypoglycemia. What is the likely cause?

A. Decreased serum cortisol
B. B.Pituitary necrosis
C. Hyperglycemia
D. Increased hair growth in a male distribution pattern
E. metastatic carcinoma

46- A 48 yr old female presents with enlarged cervical lymph node. On USG neck revealed solitary nodule in thyroid. Which of the following thyroid tumors most likely metastizes to lymph node?

A. Follicular CA
B. Papillary thyroid CA
C. Medullary CA
D. Anaplastic CA
E. Lymphoma

47- A 34-year-old woman presents with unexplained weight gain, selectively over the trunk, upper back, and back of the neck; irregular menstrual periods; and increasing obesity and "moon-faced" appearance. She has also developed purple-colored streaking resembling stretch marks over the abdomen and flanks, as well as increased hair growthin a male distribution pattern. Blood pressure is elevated to 190/100 mm Hg. Blood sugar is elevated. The clinical findings and the change in the adrenal gland are most likely related to which of thefollowing?

A. Hyperproduction of Glucocorticoid.
B. Ectopic production of TSH
C. Hyperproduction of adrenal mineralocorticoid
D. Hyperproduction of FSH. LH
E. Hyperproduction of pituitary oxytocin

48- During a training program, a 23-year-old female Air Force officer falls in class rank from first place to last place. She has also noted a lower pitch to her voice and coarsening of her hair along with an increased tendency toward weight gain, menorrhagia, and increasing intolerance to cold. Which of the following laboratory abnormalities is expected?

A. Increased serum free T4
B. Increased serum T3resin uptake
C. Increased saturation of thyroid hormone-binding sites on TBG
D. Increased serum TSH
E. Decreased serum cholesterol

49- A 35-year-old woman presents with amenorrhea and weight loss despite increased appetite. The history and physical examination reveal exophthalmos, fine resting tremor tachycardia, and warm, moist skin. Laboratory tests for thyroid function show low TSH. She is most likely to have?

A. A.Papillary carcinoma of thyroid
B. B.Multinodular goiter
C. Graves disease
D. D.Cushing syndrome
E. E.Addisons disease

50- A 9-year-old boy has had pain in the area of the right hip for the past 3 weeks. On physical examination, his temperature is 38.2° C. There is swelling with marked tenderness to palpation in the area of the right hip, pain, and reduced range of motion. Radiographs of the pelvis and legs show areas of osteolysis and cortical erosioninvolving the femoral metaphysis, with adjacent soft-tissue swelling extending from the subperiosteal region, and apparent abscess formation. Which of the following organisms is most likely to produce these findings?

A. A.Haemophilus influenzae
B. Neisseria gonorrhoeae
C. Salmonella enterica
D. Staphylococcus aureus
E. Group B streptococcus

51- A 19-year-old man falls and strikes his leg. He feels intense pain. On physical examination there is swelling in his lower leg. X ray of the patient revealed sunburst appearance with codman triangle at the lower end of femur. Which of the following is the most likely diagnosis?

A. Chondrosarcoma

B. Ewing sarcoma
C. Giant cell tumor
D. Metastatic seminoma
E. Osteosarcoma

52- MRI of a 30 year old male neurosurgery dept patient reveals a mass in the cerebellopontine angle. If this mass was to originate from the vestibular portion of the VIII cranial nerve then it is most likely to be which of the following?

A. Neuroma
B. Hemangioblastoma
C. Schwannoma
D. Wallerian Degeneration of nerve
E. Glioma

53- A 13-year-old, previously healthy boy has had pain in the right leg There is no history of trauma or recent illness. A radiograph of the right leg shows a 6-cm expansile mass in the diaphyseal region of the right lower femur that extends into the soft tissue and is covered by layers of reactive bone. A biopsy of the mass is done, and microscopic examination shows sheets of closely packed primitive cells with small, uniform nuclei and only scant cytoplasm. Karyotypic analysis of the tumor cells shows a t(11;22) translocation. What is the most likely diagnosis?

A. Chondrosarcoma
B. Ewing sarcoma
C. Giant cell tumor
D. Metastatic carcinoma
E. Osteosarcoma

54- A 71-year-old man has experienced aching pain in the right knee, lower backthe past 10 years. The pain is worse toward the end of the day. On physical examination, there is no joint swelling, warmth, or deformity. Some joint crepitus is audibleon moving the knee. Laboratory studies show normal levels of serum calcium, phosphorus, alkaline phosphatase, and uric acid. What is the most likely diagnosis?

A. Ankylosing spondylitis
B. Gouty arthritis
C. Multiple myeloma
D. Osteoarthritis
E. Pseudogout

55. The inheritance pattern of Duchenne muscular dystrophy is

A. A.X-linked recessive
B. Autosomal dominant mode of inheritance
C. Mitochondrial inheritance
D. Autosomal recessive mode of inheritance
E. Total absence or marked decrease of an important gene product

56- A 60-year-old man had an extremely aggressive brain tumor. There had been a recent onset of headache, seizures, and mental status changes, and MRI had demonstrated an infiltrating neoplasm invading the cerebral hemispheres and crossing the midline, with areas of necrosis and abnormal blood vessels. He died and autopsy confirms hemorrhage and a pseudopalisade arrangement of tumor cells. The tumor is most likely

A. Ependymoma.
B. Glioblastoma multiforme.
C. Meningioma.
D. Neurilemmoma (schwannoma).
E. Oligodendroglioma.

57- In neonates most common pathogenic organism for acute pyogenicmeningitis is

A. A.E-coli and group B streptococcus
B. Neisseria Meningitidis
C. C.Listeria monocytogenes
D. D.Strept. Pneumoniae
E. E.H.pylori

58- A 60 years old man presented in OPD with history of polyuria, polydipsia, weight loss despite normal intake, he refused to take medicine prescribed by his physician. Few years later he had acetone breath and one day found comatosed.
What is the most likely diagnosis

A. Diabetic ketoacidosis
B. Stroke
C. MI
D. Renal failure
E. Septic shock

59- A 56 years old man has twenty years history of poorly controlled DM. He has non healing foot ulcers for past two months. Which of the following complications involving bone is most likely to develop has he most likely developed?

A. Chondrocalcinosis

B. Osteomyelitis
C. Osteosarcoma
D. Osteopetrosis
E. Squamous cell carcinoma

60- A 40 year old man has sudden chest pain that persists for five hours after which he becomes short of breath. In emergency his ECG shows ST segment elevation in anterior leads. Which of the following lab test is elevated in this patient

A. ALT of 800 U/L
B. Troponin I of 32 ng/ml
C. HDL cholestrol of 55mg/dl
D. Urea nitrogen of 100 mg/dl
E. Na of 115 mmol/Lit

61- Which of the following enzyme is considered to be specific for detecting obstructive condition of liver (cholestasis)?

A. ALT/AST
B. Albumin
C. Bilirubin
D. LDH
E. Alkaline phosphatase

62- A girl presents with delayed puberty, absent secondary sexual characteristics, and primary amenorrhea. She also appears to be hypertensive and hypokalemia. Which of the following enzymes is increased if there is virilization of a person?

A. 11beta Hydroxylase
B. 17alpha hydroxylase (decreased)
C. 21 beta hydroxylase
D. Pyruvate kinase
E. Alcohol dehydrogenase

63. A clinical study is performed with pediatric subjects who had a diagnosis of minimal change disease. These patients were observed to have prominent peri-orbital edema at diagnosis. Lab findings from serum and urine tests were analyzed. Which of the following urine analysis test findings is most likely to have been consistently present in these subjects?

A. Nitrite positive
B. protein urea > 3.5 gm/24hr
C. Hematuria with > 10 RBC/hpf
D. calcium oxalate crystal
E. Renal tubular epithelial cells and cast

64- A 76-year-old man has had a slowly enlarging nodule on his right eyelid for 4 years. This lesion is excised and histology reveals infiltrating groups of cells in dermis with eiosinophilic cytoplasm, intercellular bridges and intracellular keratin formation. What is the most likely diagnosis?

A. Actinic keratosis
B. Squamous cell carcinoma
C. Dermatofibroma
D. Malignant melanoma
E. Nevocellular nevus

65- A 55/Y male patient presents with the complaint of tense bullae filled with clear fluid containing eosinophils. The bullae do not rupture easily. Microscopy of this lesion revealed subepidermal nonacantholytic blister. What is your diagnosis?

A. Pemphigus vulgaris
B. Bullous pemphigoid
C. Dermatitis herpetiformis
D. Pemphigus vegetans
E. Pemphigus foliaceous