

Aria



Department of Pathology  
Azra Naheed Medical College  
Send up Examination 2017  
MBBS 4<sup>th</sup> Year  
Special pathology

Time Allowed: 2 hours

Total Marks 75

Attempt all questions

All Questions carry equal marks

Q.1 A 70 years old male presented with painless hematuria, Cystoscopy reveals a papillary tumour invading the muscularis propria.

a) What is the pathologic stage of this tumor. T<sub>2</sub>  
0.5

b) A 60-year-old female presents with generalized body edema. Labs show hypoalbuminemia and macroalbuminuria. Fasting blood sugar levels are more than 200mg/dl. The patient gives history of "fainting episodes" also. What spectrum of changes would you expect to find on a renal biopsy from this patient? 2.5 GBM thickening,

c) Give morphological features of minimal change disease and diffuse proliferative Glomerulonephritis. 1.5

Q.2 a) a) Classify Anemias, Describe the lab diagnosis for iron deficiency and megaloblastic anemia 1.5, 2 (BCL ↓, ABC, ↓ Hb, ↑ Reticulocytes).

b) what is the pathogenesis of Thalassemia and its lab diagnosis. 1.5

Bone marrow biopsy  
K-Ray, osmotic fragility test

Q-3 A 20 year female had cervical lymphadenopathy lymph node was excised and revealed mixed population of lymphoid cells with scattered binucleated, multinucleated giant cells.

a) What is the diagnosis, describe its different types. 0.5, 2

b) Name four types of Diffuse Non Hodgkin Lymphomas .Give morphological features of Burkitt's lymphoma. 0.5

Q.4a) Classify testicular tumors along with immunomarkers. Describe the morphology of seminoma. 2.5

b) Explain Gleason grading and staging system for prostatic adenocarcinoma. 1.5

c) Describe pathogenesis for prostatic hyperplasia.

1

Q.5 A patient presented with soft tissue mass in right iliac fossa. Further investigation revealed 2 cm nodule in thyroid 8 year back and it was diagnosed as follicular adenoma.

a) If you were to examine the slide of thyroid which part you will examine most & why 1

b) What is the differential diagnosis of solitary cold nodule of thyroid.

1.5

c) Describe pathogenesis of Hashimoto's thyroiditis.

1.5

d) Describe the rule of 10 of pheochromocytoma. 1

Q.6 A 30 year old female patient presented with big toe's pain and swelling plus there was hyperemia. Serum uric acid levels are high.

a) What is the diagnosis and Describe morphology of tophus 2.5  
1.5 gout

b) Write down differences between osteoarthritis and rheumatoid arthritis  
1.5

c) A 15 year old boy developed a painful progressively enlarging mass at upper end of left tibia. Radiographically, there was triangular shadow b/w cortex and raised ends of periosteum (Codman's triangle)  
What is the most likely diagnosis? Osteosarcoma .

d) Classify primary bone tumors.

2

Q.7 A 30 year old female presented with abnormal uterine bleeding. Endometrial Currettings revealed a tumour arising from endometrium..

a- What are different types of endometrial carcinoma? Describe their pathogenesis 2

b- Give morphology of CIN 3 if the tumour is from cervix and its main causative agent. 1.5

c- Write down three differences between partial and complete mole 1.5

Q.8 A mastectomy specimen from 50 year old revealed 2 cm tumor which is well differentiated ductal carcinoma with insitu component. 3/14 lymph nodes are positive, ER,PR -ve and Her 2 Neu +ve. No mets

a) Which of these tumor characteristic have greatest effect on clinical outcome 1

b) Enumerate six prognostic and predictive factors of breast carcinoma 1.5

c) Give morphology of lobular carcinoma.

1

d) What is Paget's disease of nipple and different types of ductal carcinoma insitu. 1.5

Q.9 A 20 years old girl with history of chest tightness, wheezing and dyspnea coughs up copious mucous containing charcot leyden crystals and curschmann spirals. Her peripheral blood picture shows marked eosinophilia. Her mother also gives history of eczema in the family.

a) Give the most likely diagnosis? 1

b) Write the mediators involved in the pathogenesis of this disease. 2

c) Give differences b/w small cell lung carcinoma & non-small cell lung carcinoma. 2

Q. 10 A 31 year old male has been suffering from attacks of bloody diarrhea with stringy, mucoid material; lower abdomen pain and cramps that are temporarily relieved by defecation. Colonoscopy demonstrates ulcerations with pseduopolyps extending from rectum to splenic flexure.

a) What is the most strongly suggestive diagnosis based on the given scenario? 1

b) Tabulate features differentiating it from another disease of similar category. 2.5

c) A 65 years old man presented with history of fatigue, weakness and lower abdominal pain. He has complained of changes in the bowel habits over the past one year. Blood picture showed iron deficiency anemia. Colonoscopy revealed a mass with irregular margins and

overlying ulceration and hemorrhage. Name the genetic mutations present in this disease. 1.5

11-A 65 year-old- man died after severe chest pain. At autopsy, there were thickened walls of many arteries including the coronary arteries with luminal narrowing and the lesions consisted of raised plaques having a soft center with a fibrous cap:

- a) What is this process known as and what other arteries it most commonly involves? 1.5
- b) What are the principal components of these plaques? 2
- c) What is Aschoff nodule and name the criteria to diagnose the disease having this lesion. 1.5

12-a) Discuss two laboratory tests each for the evaluation of hepatocyte integrity, biliary excretory function and hepatocyte function.

2

b) what are different diagnostic serological markers of Hepatitis C and Hepatitis B infection. 1.5+1.5.

13- Describe etiology and types of Renal stones and Gall stones. 5

14- Give WHO classification of brain tumours. 2

b- Describe morphology of Glioblastoma Multiforme. 1

c- Enumerate causes with lab diagnosis of meningitis. 2

Q-15 A 65 years old alcoholic man previously diagnosed with Hepatitosis C infection presented with malaise, weight loss with loss of appetite.

Ultrasonography reveals a mass with infiltrative margins and surrounding nodular liver. His Alpha-fetoprotein levels are raised.

a- What is the most likely diagnosis. 0.5 HCC

b- What are different premalignant conditions of this lesion. 2.5

c- Give morphology of its commonest variant. 1 fibromellar variant rich in mitochondria,

d- Describe morphology of parenchyma of liver surrounding this liver mass. collagen bundles

unifocal  
multifocal

diffusely infiltration.