



# THE SUPERIOR COLLEGE, LAHORE

4<sup>th</sup> PROFESSIONAL MBBS  
ANNUAL EXAMINATION 2019

## **PATHOLOGY**

### **(SEQ'S)**

F15-099

Roll No. -----

Time Allowed: 2 hours

Total Marks: 75

### Instructions

1. The SEQ's part is to be submitted within 2 hours, Extra time will not be given.
2. Neat Hand Writing use of margin and marker for headlines will increase the presentation of your paper.
3. Do not write your name or disclose your identity in anyway.

### Attempt All Questions

CVS  
 2 ✓ Q1- A 65 years old diabetic, hypertensive male presented to emergency department with breathlessness and crushing stabbing pain over chest for 3 hrs. His coronary vessel revealed raised lesion on the surface with narrowing of the lumen.

- 2 ✓ a) Briefly describe the steps involved in the pathogenesis of atherosclerosis keeping in mind the role of factors mentioned above in scenario. (3)
- 2 ✓ b) Write down major complications of this process. (2)

499 pg

- Aneurysm & Rupture
- Thrombus
- stenosis
- MI
- stroke
- recurrent gangrene of legs
- Hemorrhage

Q2- A 13 years old African male presented with severe anemia, non healing ulcers, recurrent chest and abdominal pain. Peripheral blood smear reveals crescent shaped RBCs.

- 1 ✓ a) What is the most likely diagnosis? Write down pathogenesis of likely sign and symptoms (2.5)
- 1 ✓ b) Classify hemolytic anemias. (1.5)
- 1 ✓ c) Give Lab diagnosis of Thalassemia (1)

→ Entranasular Hemolysis of Sickle cells. Point mutation (glutamic acid replaced by valine)  
 HBS molecules aggregate and Polymerize into long needle like structures

Q3A 35 years old male presented with fever, malaise, weight loss and cervical lymphadenopathy. The excised lymph node reveals mixed population of cells comprising neutrophils, eosinophils, plasma cells and lymphocytes. Bi nucleate owl eye cells and mono nucleate cells are also seen.

- 1 a- What is the most likely diagnosis. (1) Hodgkin lymphoma
- b- What are its different morphological types. (3)
- c- What is the most likely translocation of Burkitts lymphoma. (1)

Q4- A 43 year old male presents to medical OPD complaining of persistent cough, which produces copious sputum. He is a heavy smoker and has suffered such coughs for several years. His physical examination reveals diffuse wheezing and crackles. On spirometry he has decreased FEV1/FVC ratio. He is strongly recommend to stop smoking.

P.T.O



- 2 ✓ a) What is your diagnosis?(1)  
 ✓ b) Define obstructive and restrictive lung diseases. (2)  
 ✓ c) Name two paraneoplastic syndromes associated with small cell carcinoma lung (2)

Q5- A 58 year old male is suffering from upper GI discomfort and pain. He is suffering from H pylori associated gastritis.

- 2 ✓ a) What are the possible diseases associated with H pylori infection(2.5)  
 2 ✓ b) Give pathogenesis of Barretts esophagitis(2.5)

*Chronic atrophic gastritis*  
*Peptic ulcer*  
*adrenocarcinoma*  
*MALToma*  
*Duodenal ulcer*  
*chromosomal abnormalities, mutation of TP53, CDKN2A*  
*allelic loss and hypermethylation*  
*Amplification*

Q6- A 55 years female presented in OPD clinic with long standing history of altered bowel habits, abdominal pain and blood in stools. Her colonoscopy shows pseudopolyps and ulcerated mucosa without intervening normal mucosa.

- 2 ✓ a) What will be your diagnosis?(0.5) *Ulcerative C*  
 2 ✓ b) What is the most likely complication of this disease(0.5) *Toxic Megacolon*  
 2 ✓ c) Describe role of APC in formation of colorectal carcinoma(4) *90% marked lines*

Q7- Write down causes of Nephritic & Nephrotic syndrome. (2)  
 b. Describe the Light microscopic, Electron microscopic and Immunofluorescence findings in case of minimal change disease. (3)

Q8- An 80 year old man comes with complaint of hesitancy and nocturia for past 1 yr. On digital rectal examination he has irregular hard prostate.

- 2 ✓ a) What will be your diagnosis? (0.5)  
 2 ✓ b) Describe briefly Gleason grading system? (3)  
 988 pg ✓ c) What is the Role of PSA in prostate pathology (1.5)

Q9- A 45 years old female patient develops a peanut sized nodule in an old midline laparotomy scar, which becomes painful during menstrual period. The excised nodule consists of normal looking endometrial tissue with glands and stroma.

- 1 ✓ a) Briefly discuss the theories responsible for pathogenesis of such lesions. (1.5)  
 1.5 ✓ b) Classify ovarian tumors. (1.5)  
 4 ✓ c) What are the differences between complete and partial mole. (2)

Q10- A 40 years old female with a family history of breast carcinoma went for mammographic screening which showed linear, branching pattern of calcification but no density. On histological examination solid sheets of pleomorphic cells with high grade nuclei and central areas of necrosis is seen.

- 2 ✓ a) What is the diagnosis? (0.5)  
 2 ✓ b) Briefly discuss the prognostic and predictive factors of breast carcinoma? (2.5)  
 1 ✓ c) Write short note on Paget's disease of nipple. (1)



Q11- A 38 year old male patient presents with malaise, fever and jaundice. His serological tests are positive for HBsAg. Hepatitis B

a. Give graphic representation of serological markers in Acute and chronic infection

(02)

b. What are precursor lesions of hepatocellular carcinoma (2)

adenoma HCC  
scl LCC LAD

c. What serum marker is advised for diagnosis of HCC (1)  $\alpha$ Feto protein

Q12- A 37 year old school teacher went to her general practitioner with complaints of tiredness, weight gain and a feeling of discomfort in her neck. On clinical examination she had goiter and her laboratory tests revealed a raised serum TSH and low free T3 & T4 levels. Thyroid peroxidase (TPO) antibodies were present in high concentrations.

a) What is the most likely diagnosis? Give the mechanism of injury in this case. (3) Hashimoto thyroid

b) Give morphological features of papillary carcinoma of thyroid (2)

Q13a- Enumerate the bone forming tumors. Write down gross and microscopic appearance of osteosarcoma. (2.5)

b. Compare & contrast the morphology of Osteoarthritis & Rheumatoid arthritis. (2.5)

Q14a- Give the CSF findings in a tabulated form of the followings

Acute pyogenic meningitis, Viral meningitis and Tuberculous meningitis. (2.5)

b) Briefly discuss the parameters used in laboratory to evaluate renal functional status. (2.5)

Q15. Classify thyroid tumors (2)

b) Give microscopic picture of medullary carcinoma of thyroid (3)

spindle cells  
cell hyperplasia  
ooms follicles  
amyloid Deposits

s of medullary  
ca

e  
osis  
orrhage  
grey to tan

TB is serious ch. Pulmonary and systemic disease

Cause: Mycobacterium TB

Steps of Infection:

- 1) Entry into macrophage
- 2) Replication
- 3) TH<sub>1</sub> mediated macrophage activation
- 4) Granulomatous Inflammation