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MANIPAL UNIVERSITY
MELAKA MANIPAL MEDICAL COLLEGE (MANIPAL CAMPUS)
MBBS PHASE – I STAGE – II DEGREE EXAMINATION – SEPTEMBER 2017
SUBJECT : PATHOLOGY – PAPER I (ESSAY)

Saturday, September 09, 2017

Time : 9.00 a.m.- 11.00 a.m.

Max. Marks : 60

- ✓ **Answer all the questions**
- ✓ **Write the question number clearly in the margin**
- ✓ **Draw diagrams wherever appropriate**

1. In a tabular column, distinguish between apoptosis and necrosis with suitable examples.
(2½+2½ = 5 marks)

2. 17 years old, Liz consulted a physician for complaints of low grade fever and cough since 2 weeks. The physician examined her and found enlarged neck nodes. Biopsy of the neck node was done which was reported as granulomatous lymphadenitis.
2A. Enumerate the causes of granulomatous lymphadenitis.
2B. Draw a granuloma and label its components.
(2½+2½ = 5 marks)

3. Describe the clinical features, blood and bone marrow findings in acute myeloid leukemia.
(2+1½+1½ = 5 marks)

4. Describe the metastatic cascade with the help of a suitable diagram.
(5 marks)

5. In a tabular format enumerate differences between Crohn's disease and ulcerative colitis on the basis of morphology and complications.
(3+2 = 5 marks)

6. Describe the pathogenesis and morphology of alcoholic liver disease.
(2+3 = 5 marks)

7. Explain the clinicopathological features of basal cell carcinoma.
(5 marks)

8. Classify the central nervous system tumours on the basis of their cell of origin. Write a brief note on meningioma.
(3+2 = 5 marks)

9. A 56 year old man, a known hypertensive and diabetic developed severe, acute chest pain with profuse sweating. The pain was radiating to the left arm. The ECG showed ST segment elevation. The serum troponin level was elevated.

9A. What is the diagnosis?

9B. Describe the morphology of the lesion in the heart.

9C. Add a note on the complications of this condition.

($\frac{1}{2}+2\frac{1}{2}+2 = 5$ marks)

10. In a tabular form write the differences between bronchopneumonia and lobar pneumonia.

(5 marks)

11. Classify testicular tumours. Describe the gross and microscopic features of testicular seminoma.

(2+3 = 5 marks)

12. Discuss the clinical presentation and morphology of renal cell carcinoma.

(2+3 = 5 marks)



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MBBS PHASE – I STAGE – II DEGREE EXAMINATION – SEPTEMBER 2017
SUBJECT : PATHOLOGY – PAPER II (MTF)

Saturday, September 09, 2017

Time : 11.30 a.m. - 12.30 p.m..

Max. Marks : 120

INSTRUCTIONS

1. For each statement, select T (True) or F (False) as your choice.
2. Indicate your choice by darkening the appropriate circle in the answer sheet provided.
3. Use only HB or 2B pencils to darken the circle.
4. Leave blank for Don't Know response.
5. Scoring systems is as follows :
 - For every **Correct** response **1** mark is awarded
 - For every **Wrong** response **0.5** mark is deducted
 - For every **Don't Know** response **No** mark is deducted
6. Indicate your Roll Number (Registration Number) clearly and correctly.
7. Do not write anything in the question paper.
8. The true/false statements are numbered 101 to 160 and 201 to 260 (Total 120 statements).
9. This question paper contains **04 pages**. Please make sure that the question paper provided to you has all the pages.

Granulation tissue

101. Is premalignant
102. Comprises of capillary loops and myofibroblasts
103. Is a repair process

Hypertrophy

104. Is the increase in organ size because of increase in cell number
105. Is the response of skeletal muscle cells to increased demand
106. Of hepatocytes results in regenerative nodules
107. Of the erythroid cells occur in chronic blood loss

In fracture healing

108. The callus formed is finally replaced by lamellar bone
109. Hematoma at the site facilitates repair
110. Pre- existing bone disease retards healing

Chemical mediators released from cells include

111. Histamine
112. Kinins
113. Prostaglandins
114. Chemokines

Beneficial effects of inflammation include

115. Fibrin formation
116. Swelling
117. Stimulation of immune system

An exudate

118. Has high protein content
119. Results from high colloid osmotic pressure
120. Contains no inflammatory cells

Iron deficiency anemia

121. Is associated with increased iron binding capacity & increased serum iron
122. Shows nucleated RBCs in the peripheral smear

Hodgkin's disease

123. Is characterized by Reed Sternberg cells
124. Of the lymphocyte predominant type has a good prognosis
125. Is classified based on the Rye or WHO classification
126. Can be associated with Epstein Barr virus infection

Beta thalassemia major

127. Is characterised by decreased HbF and increased HbA2
128. Shows aggregates of alpha chain in the red cells
129. On blood smear shows macrocytic anemia
130. Is most often seen in the new born

The shape of the tumour is correctly matched with its description

131. Polypoid : Pedunculated protrusion
132. Sessile : Broad base without discrete stalk
133. Papillary : Surface characterized by numerous villous projections
134. Annular : Encircling the circumference of a hollow organ

Benign tumours

135. Are often encapsulated
136. Are invasive
137. May be associated with the production of hormone
138. Do not resemble the parent tissue on microscopy

Premalignant lesions include

139. Oral leucoplakia with dysplasia
140. Hepatic cirrhosis

Colorectal cancers

141. Are caused by a low fat, high fibre diet
142. Present with change in bowel habits
143. Are usually squamous cell carcinomas
144. Are associated with defect in DNA repair

Regarding carcinomas of the stomach

145. Diffuse type of gastric carcinoma carry a better prognosis than the intestinal type
146. Majority are adenocarcinomas
147. Most cases present when clinically advanced

Barrett's oesophagus

148. Commonly involves the middle third of the oesophagus
149. Is a premalignant condition
150. Shows metaplastic intestinal type epithelium

Cholelithiasis

151. Of the cholesterol type is associated with hemolytic anemia
152. Of the pigment type is yellow in colour
153. Can lead to mucocele and empyema
154. Causes obstructive jaundice

Chronic hepatitis is characterized by

155. Portal tract inflammation
156. Interface hepatitis
157. Bridging fibrosis

Wilson's disease

158. Is characterized by high serum ceruloplasmin levels
159. Is an inherited autosomal dominant disorder
160. Is associated with excess copper deposition in liver and basal ganglia of brain

Gout is associated with the following conditions

201. Hypertension
202. Obesity
203. Cirrhosis of liver
204. Hyperlipoproteinaemia

Regarding malignant melanoma of the skin

205. It is usually melanotic but may be non pigmented
206. 'Nodular' variant is the commonest type
207. Prognosis depends upon the thickness of the tumour

Characteristic features of chondrosarcoma include

208. Early widespread metastasis
209. Codman's triangle
210. Epiphyseal origin

Cerebral abscess

211. Shows capsule formed by granulation tissue
212. May become multiloculated
213. Follows middle ear infection
214. Is diagnosed by lumbar puncture

Regarding cerebral infarction

215. It occurs commonly in the distribution of middle cerebral artery
216. On microscopy macrophages with ingested lipid products of myelin breakdown is seen
217. Risk factors include hypertension and diabetes mellitus

Regarding aneurysms

218. Mycotic aneurysms are most commonly seen in intracerebral arteries
219. They are sites for thrombus formation
220. Berry aneurysm is associated with Marfan's syndrome

Infective endocarditis

- 221. Is characterized by the formation of small sterile vegetations on the heart valves
- 222. Is caused by *Staphylococcus aureus* in drug addicts
- 223. Can cause glomerulonephritis as a complication
- 224. Of the acute type is a mild self-limiting disease

Coarctation of aorta

- 225. Causes intracerebral haemorrhage
- 226. Presents with cyanosis at birth
- 227. Causes notching of ribs
- 228. Presents with upper limb hypertension and lower pressure in the lower limb

With reference to cardiac failure

- 229. Cor pulmonale is right heart failure secondary to lung disease
- 230. Paroxysmal nocturnal dyspnoea is a characteristic sign of right heart failure

Complications of bronchiectasis include

- 231. Meningitis
- 232. Pneumoconiosis
- 233. Primary amyloidosis

Regarding tuberculosis

- 234. It is an example for type III hypersensitivity reaction
- 235. In a primary infection, the lesion is usually 10 mm in diameter
- 236. In miliary tuberculosis, Mantoux test is frequently negative

Regarding adult respiratory distress syndrome

- 237. It causes diffuse bronchial damage
- 238. It is an acute interstitial disease of lung
- 239. There is respiratory distress with hypoxemia refractory to oxygen therapy
- 240. Resolution occurs with regeneration of Type II pneumocytes

Papillary carcinoma of the thyroid

- 241. Occurs in the elderly
- 242. Histologically consists of papillary projections with psammoma bodies
- 243. Metastasizes via the blood stream to bones and lungs

Systemic complications in diabetes mellitus due to microangiopathy include

- 244. Retinopathy
- 245. Nephropathy
- 246. Accelerated atherosclerosis
- 247. Cataract

Lobular carcinoma breast

- 248. Has marked nuclear pleomorphism
- 249. Shows 'Indian file pattern' on microscopy
- 250. Lacks the scirrhous consistency seen in ductal carcinoma
- 251. Behaves more aggressively than ductal carcinoma

The type of glomerulonephritis is correctly matched with the description of immune complex deposition

- 252. Membranoproliferative glomerulonephritis: 'Lumpy humpy'
- 253. Membranous glomerulonephritis: 'Spiky'
- 254. Diffuse proliferative glomerulonephritis: 'Ribbon like'

Nephrotic syndrome is characterised by

- 255. Hypercholesterolemia
- 256. Hematuria
- 257. Anasarca

Pathologic features of chronic pyelonephritis include

- 258. Deep irregular scars at the poles of the kidney
- 259. Abscesses in the renal cortex and medulla
- 260. Thyroidisation of the renal tubules

