

BATCH-56 - March-2017

Reg. No.

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

Saturday, March 11, 2017

Time : 2.00 - 4.00 Hrs.

Max. Marks : 60

1. Describe the types of necrosis with examples.
(5 marks)
2. Describe the cellular co-operation in chronic inflammation.
(5 marks)
3. Describe the clinical features, blood and bone marrow changes seen in acute myeloid leukaemia.
(2+1½+1½ = 5 marks)
4. A 54 year old lady, who was diagnosed with cervical cancer, 3 years ago, presented to the oncology clinic with severe cough, breathlessness and hemoptysis. The chest radiograph showed multiple opacities in both the lung fields.
 - 4A. Explain the pathophysiological basis of the respiratory symptoms in this patient with cervical cancer.
 - 4B. Describe the metastatic cascade of tumours with a suitable diagram.
(1+4 = 5 marks)
5. Discuss the role of Helicobacter pylori in the pathogenesis of gastritis and gastric neoplasms.
(2+3 = 5 marks)
6. Describe the aetiopathogenesis and complications of cholelithiasis.
(3+2 = 5 marks)
7. Explain the clinicopathological features of basal cell carcinoma.
(5 marks)
8. Discuss the pathogenesis and morphological features of cerebral infarction.
(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 seen to radiate 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.
- 9C. Add a note on the complications of this condition. ($\frac{1}{2}+2\frac{1}{2}+2 = 5$ marks)
10. Describe the aetiopathogenesis and morphological features of lobar pneumonia. (1+4 = 5 marks)
11. A 39-year-old female on screening mammography was found to have foci of calcifications. Compare the gross and microscopic features of 2 possible breast lesions in this patient. (5 marks)
12. A 10 year old child is brought to the paediatric OPD with complaints of puffiness of face, insufficient urine output and smoky urine. You elicit a history that the child had sore throat about two weeks ago. Describe the aetiopathogenesis, urine examination findings and histological features you expect to see in this child. (2+1+2 = 5 marks)



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MBBS PHASE – I STAGE – II DEGREE EXAMINATION – MARCH 2017

SUBJECT : PATHOLOGY – PAPER II (MTF)

Saturday, March 11, 2017

Time : 4.30 - 5.30 Hrs.

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

Regarding the branches of pathology

104. Histopathology is synonymous with anatomic pathology
105. The investigation of a bleeding disorder is done by a cytopathologist
106. Haematology deals with the study of blood cells

The following terms and their meanings are correctly matched

107. Atrophy: failure of growth of a tissue
108. Metaplasia: increase in cell number and organ size
109. Eponym: the evolution and progression of a disease
110. Pathognomonic: pathological features characteristic of a disease

Components of pus include

111. Dying and degenerate lymphocytes
112. Infecting organisms
113. Fibroblasts

Regarding the role of neutrophil in acute inflammation

114. Opsonisation means ingestion of solid particles
115. Phagosome contains enzymes to digest the bacteria
116. Lactoferrin causes oxygen dependent killing of micro-organism
117. Neutrophils move by contraction of cytoplasmic microtubules

Histamine causes

118. Vasoconstriction
119. Increase in vascular permeability
120. Up-regulation of leukocyte adhesion molecules

Intravascular haemolysis is seen in

121. G6PD deficiency
122. Hereditary spherocytosis
123. Thalassaemia major
124. Mismatched blood transfusion

Myeloproliferative disorders include

125. Chronic myeloid leukaemia
126. Myelofibrosis
127. Acute lymphoblastic leukaemia

Thrombocytopenia

128. Causes mucosal bleeding
129. Leads to spontaneous bleeding into muscles
130. Causes bleeding immediately after surgery

Regarding teratomas

131. They are derived from germ cells
132. Ovarian teratomas are almost always malignant and relatively solid
133. Extragonadal sites include the mediastinum

Benign tumours

134. Are often encapsulated
135. Are invasive
136. May be associated with the production of a hormone
137. Do not resemble the parent tissue histologically

With reference to carcinoma in situ

138. The basement membrane is breached
139. Complete excision at this stage of the tumour will guarantee a cure
140. It is followed by a phase of dysplasia

Regarding colorectal cancer

141. Majority are neuroendocrine tumours
142. There is increased risk in patients with hamartomatous polyps
143. It is associated with defects in DNA repair
144. Breslow thickness is the best guide to prognosis

Amoebiasis of the large intestine is

- 145. Due to infection by *Schistosoma haematobium*
- 146. Characterised by broad based ulcers
- 147. Complicated by liver abscess

Pleomorphic adenoma is

- 148. Associated with mumps virus infection
- 149. Composed of stromal and epithelial elements
- 150. More common in the minor salivary glands

Regarding jaundice in infants

- 151. Congenital metabolic defects are rare causes of jaundice
- 152. Physiological neonatal jaundice has a very poor outcome
- 153. Kernicterus is a complication
- 154. Phototherapy is a remedial measure

Regarding hepatocellular carcinoma

- 155. *Aspergillus fumigatus* is an aetiological agent
- 156. Alpha-fetoprotein is a useful diagnostic marker
- 157. In cirrhotic livers, liver cell carcinomas are often multifocal

Acute pancreatitis may

- 158. Be characterized by discolouration of the skin in the anterior abdominal wall
- 159. Be complicated by hypoglycaemia
- 160. Cause tetany

A patient with gouty arthritis has

- 201. Involvement of the large joints
- 202. Raised serum uric acid levels
- 203. Pannus formation in the joint spaces

The fate of a thrombus include

- 204. Organisation
- 205. Embolism
- 206. Infarction
- 207. Recanalization

The central nervous system tumours are matched with their cell of origin

- 208. Glial cells: Medulloblastoma
- 209. Arachnoidal cells: Meningioma
- 210. Nerve sheath cells: Astrocytoma

Characteristic features of chondrosarcoma include

- 211. Early widespread metastasis
- 212. Codman's triangle
- 213. Epiphyseal origin
- 214. Good response to chemotherapy

The 'water shed areas' prone for infarction include

- 215. Splenic flexure of colon
- 216. Exocrine pancreas
- 217. Renal tubules

Causes of lymphatic oedema include

- 218. Protein malnutrition
- 219. Obstruction of lymphatics by filarial larvae
- 220. Heart failure

Regarding atherosclerosis

- 221. The lesion occurs predominantly in the tunica media
- 222. The earliest lesion is the fibro lipid plaque
- 223. Antioxidants within the tunica intima prevent oxidation of LDL

Regarding hypertension

- 224. Intracerebral haemorrhage is a frequent cause of death
- 225. The larger arteries are more affected than small arteries and arterioles
- 226. Corticosteroids can induce hypertension
- 227. Renal failure is a consequence of malignant hypertension

The components of Fallot's tetralogy are

- 228. Over-riding of the aorta
- 229. Left ventricular hypertrophy
- 230. Stenosis of the aortic valve

Adult respiratory distress syndrome

- 231. Can occur due to narcotic abuse
- 232. Can be treated with oxygen therapy
- 233. Shows heavy and congested lungs in acute stage
- 234. Shows diffuse bronchial damage

Primary tuberculosis

- 235. Heals by forming fibrocavitary lesion
- 236. May contain dormant tubercle bacilli for many years
- 237. Is seen in the apex of the lung.
- 238. On microscopy, shows aggregates of epithelial cells

Psammoma bodies are seen in

- 239. Papillary carcinoma of thyroid
- 240. Serous cystadenocarcinoma of ovary
- 241. Benign nodular hyperplasia of prostate
- 242. Meningioma

Seminoma

- 243. Can show increased serum placental like isoenzyme of alkaline phosphatase
- 244. Occurs as a unilateral painful enlargement of the testis
- 245. Shows increased incidence in cryptorchidism
- 246. Of seminomatous type is seen in the elderly

Hashimoto's thyroiditis is associated with

- 247. Hyperplasia of thyroid follicular cells
- 248. Askanazy cells
- 249. Hypothyroidism
- 250. Deficiency of iodine

Predisposing factors of renal cell carcinoma include

- 251. Tobacco smoking
- 252. Alcohol
- 253. Aniline dyes
- 254. Renal stones

Regarding acute tubular necrosis

- 255. It is an irreversible cause of acute renal failure
- 256. There is death of renal tubular epithelial cells
- 257. It can be caused by NSAIDs

Complications of renal calculi include

- 258. Hydronephrosis
- 259. Pyelonephritis
- 260. Glomerulonephritis

