

MANIPAL UNIVERSITY

MBBS PHASE I STAGE II DEGREE EXAMINATION – AUGUST 2014

SUBJECT: PATHOLOGY – I (ESSAY)

Saturday, August 16, 2014

Time: 14:00 – 16:00 Hrs.

Max. Marks: 60

1. Describe with illustrations, the steps of fracture healing. Mention the factors that retard fracture healing.
(4+1 = 5 marks)
2. Describe the beneficial, harmful and systemic effects of inflammation.
(2+2+1 = 5 marks)
3. A 10 year old child was admitted in the hospital with bleeding gums, ecchymotic patches over the body and haematuria. Compare the inheritance, aetiopathogenesis and laboratory diagnosis of two inherited bleeding disorders that are possible in this child.
(5 marks)
4. What is metastasis? Describe the metastatic cascade with suitable diagrams.
(1+4 = 5 marks)
5. Tabulate the differences between a benign and malignant ulcer of stomach on the basis of aetiology, gross features and microscopic features.
(2+2+1 = 5 marks)
6. Describe the aetiology and clinicopathological features of cirrhosis of liver.
(1½+3½ = 5 marks)
7. Describe the clinicopathological features of basal cell carcinoma.
(5 marks)
- 8A. Write a note on arterial thrombus with reference to the predisposing factors and fate.
- 8B. Describe the consequences of pulmonary embolism.
(3+2 = 5 marks)
9. A 65 year old man presented to the emergency room with a recent (4 hours) history of chest pain radiating to his left arm. Coronary artery angiogram revealed complete occlusion of the left coronary artery close to its origin. Laboratory report indicated that his serum levels of creatine kinase [CK-MB] were markedly elevated. He was admitted in the cardiac ICU. The patient's condition deteriorated over the next few days and he died on the 4th day following admission. An autopsy was performed.
Describe the gross and microscopic changes expected in the heart at autopsy. What are the possible causes of death in this case?
(3+2 = 5 marks)

10. Describe the aetiopathogenesis, morphology and complications of primary pulmonary tuberculosis.
(2+2+1 = 5 marks)
11. Explain with the help of suitable diagrams the types of cervical intra-epithelial neoplasia. What are the steps in its progression to invasive carcinoma?
(3+2 = 5 marks)
12. Compare two types of immune complex glomerulonephritis on the basis of clinical presentation, aetiopathogenesis and glomerular changes.
(2+1+2 = 5 marks)



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MBBS PHASE I STAGE II DEGREE EXAMINATION – AUGUST 2014

SUBJECT: PATHOLOGY – II (MCQs)

Saturday, August 16, 2014

Time: 16:30 – 17:30 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.

Caseous necrosis

- 101. Is pathognomonic of acute pancreatitis
- 102. Has dead tissue which retains its structure
- 103. On gross examination resembles cheese

Fatty change

- 104. Is intranuclear accumulation of fat droplets
- 105. In liver, causes the nucleus of the hepatocytes to be pushed to the periphery of the cell
- 106. Is irreversible

Characteristic features of Klinefelter's syndrome include

- 107. Atrophic testis
- 108. Gynaecomastia
- 109. Mental retardation
- 110. Presence of one Barr body

Components of a typical granuloma include

- 111. Reed Sternberg giant cells
- 112. Newly formed blood vessels
- 113. Collagen in the centre of the granuloma
- 114. Epithelial cells
- 115. Modified macrophages

Growth factors

- 116. Stimulate collagen formation
- 117. Include bradykinin and histamine
- 118. Play a role in healing
- 119. Promote angiogenesis
- 120. Are produced by macrophages

Acute lymphoblastic leukaemia

- 121. Occurs more commonly in the elderly rather than in children
- 122. Shows blasts having Auer rods
- 123. Is associated with Philadelphia chromosome

Auto-immune thrombocytopenic purpura is characterized by

- 124. A preceding viral infection in children
- 125. Decreased megakaryocytes in the bone marrow
- 126. Increased prothrombin time and activated partial thromboplastin time

G6PD deficiency

- 127. Is an X-linked disorder

128. Is characterized by chronic spontaneous haemolysis

129. Is precipitated by anti-malarial drugs

130. Renders the red cells susceptible to oxidative damage

Metabolic effects of tumours include

- 131. Cachexia
- 132. Cushing's syndrome
- 133. Thyrotoxicosis
- 134. Finger clubbing

Features considered in the assessment of tumour grade include

- 135. Mitotic activity
- 136. Tumour size
- 137. Degree of differentiation

Regarding hamartoma

- 138. It is a collection of blood in a cavity
- 139. Adenochondroma of lung and pigmented naevi of skin are examples
- 140. It is premalignant

Crohn's disease is characterised by

- 141. Transmural inflammation
- 142. Granulomas with central caseous necrosis
- 143. Pseudopolyps

Regarding colorectal carcinoma

- 144. They are linked to a high-fat, high-protein and low-fibre diet
- 145. All are adenocarcinomas
- 146. Duke's staging is a guide to prognosis
- 147. Adenomatous polyps in the colon are precursor lesions

Leukoplakia is

- 148. Usually seen as white patches in the oral cavity
- 149. Premalignant
- 150. Characterised by hyperplasia and dysplasia of squamous epithelium

Causes for obstructive jaundice include

- 151. Acute fatty liver
- 152. Congenital biliary atresia
- 153. Gall stones
- 154. Carcinoma of the head of pancreas

Blood borne hepatitis viruses include

- 155. Hepatitis E
- 156. Hepatitis B
- 157. Hepatitis C

Liver failure is characterised by

- 158. Hyperalbuminemia
- 159. Encephalopathy
- 160. Spider-naevi

Osteoporosis is

- 201. Most commonly seen in adolescent girls
- 202. A complication of long standing steroid therapy
- 203. The result of an imbalance between bone formation and resorption

Characteristic features of Systemic Lupus Erythematosus include

- 204. Erythematous 'butterfly' rash on face
- 205. Macrocytic anaemia
- 206. Leukocytosis
- 207. Tissue deposition of urate crystals

Giant cell tumour of bone

- 208. Belongs to the group of neuroectodermal tumours
- 209. Typically affects children under 10 years of age
- 210. Characteristically occurs in the diaphysis of long bones

Meningiomas

- 211. Are more common in females than in males
- 212. Arise from the cells of the choroid plexus
- 213. Form smooth lobulated masses broadly adherent to the dura mater

Intracerebral haemorrhages

- 214. Are most commonly associated with hypertension
- 215. Frequently occur in the basal ganglia
- 216. Are complicated by intracranial herniation

Causes of hypovolaemic shock include

- 217. Acute myocardial infarction
- 218. Haemorrhage
- 219. Extensive burns
- 220. Coronary artery embolism

Persons at an increased risk of infective endocarditis include

- 221. Drug addicts
- 222. Rheumatic valvular disease patients
- 223. Patients with prosthetic heart valves
- 224. The elderly with calcific valves
- 225. Patients with myocardial infarction

Buerger's disease

- 226. Is also known as polyarteritis nodosa
- 227. Is aetiologically associated with alcoholism
- 228. Involves large muscular arteries
- 229. Affects males more often than females
- 230. Leads to peripheral gangrene

Regarding primary lung tumours

- 231. Small cell carcinoma originates from the squamous cells in the bronchus
- 232. Adenocarcinomas are hilar in location
- 233. Squamous cell carcinoma is associated with cigarette smoking

Adult respiratory distress syndrome

- 234. Occurs due to shock
- 235. Leads to formation of hyaline membrane in the lung
- 236. Due to oxygen toxicity is caused by free radical damage

Emphysema

- 237. Causes enlargement with destruction of the elastin in the alveolar wall
- 238. Of the irregular type is associated with bulla formation
- 239. Of the centrilobular type involves the entire respiratory acinus
- 240. Of the irregular type is associated with alpha₁ anti-trypsin deficiency

Regarding partial mole

- 241. It is triploid
- 242. A fetus may be present
- 243. There is circumferential trophoblastic hyperplasia affecting all the villi
- 244. The patient may present with a 'large for date' pregnant uterus

Risk factors for breast carcinoma include

- 245. Hypercholesterolaemia
- 246. Younger age at first full term pregnancy
- 247. Long interval between menarche and menopause

Adrenal apoplexy

- 248. Means acute increase in adrenocortical hormone levels
- 249. Is also called Waterhouse Friderichsen syndrome
- 250. Is associated with adenoma of adrenal gland

Transitional cell carcinomas of the urinary bladder

- 251. Are solitary lesions arising from muscle layer
- 252. Are less common than squamous cell carcinoma of urinary bladder
- 253. Of the grade III type are flat, ulcerated and invasive
- 254. Can be detected on urine cytology
- 255. Are aetiologically associated with nitrosamines

Chronic pyelonephritis

- 256. Grossly shows scars on the surface of the kidney
- 257. Is associated with vesico-ureteric reflux
- 258. Microscopically shows 'thyroidisation'
- 259. Predisposes to renal cell carcinoma
- 260. Follows ascending infection by bacteria