Batch 29.

Reg. No.										

MANIPAL UNIVERSITY

MBBS PHASE I STAGE II DEGREE EXAMINATION – AUGUST 2013

SUBJECT: PATHOLOGY – I (ESSAY)

Thursday, August 08, 2013

Time: 09:00 – 11:00 Hrs. Max. Marks: 60

1A. Define apoptosis. Describe the regulation of apoptosis.

1B. What are the differences between apoptosis and necrosis?

(3+2 = 5 marks)

2. Discuss the role of neutrophil polymorph in acute inflammation.

(5 marks)

3. A 10 year old child presents with pallor and jaundice since 2 years of age. Examination revealed splenomegaly. Basic haematological tests showed evidence of anaemia with reticulocytosis suggestive of a haemolytic anaemia. Compare the aetiopathogenesis and laboratory diagnosis of two conditions which present with such a picture.

(2+3 = 5 marks)

4. Classify and describe chemical carcinogenesis.

(2+3 = 5 marks)

5. Describe the gross morphology and microscopy of ulcerative colitis. Mention four complications of ulcerative colitis.

(2+2+1 = 5 marks)

6. A 60 year old chronic alcoholic dies due to end stage liver disease. Autopsy revealed nodularity of the liver.

6A. Explain the pathogenesis and morphology of this condition.

6B. In a tabular format, write the clinical features of liver failure and their pathophysiological basis.

(2½+2½ = 5 marks)

7. In a tabular format, differentiate the clinicopathological features of osteoarthrosis and rheumatoid arthritis.

(5 marks)

8. Classify primary tumours of CNS. Describe the clinicopathological features of any one of them.

(2+3 = 5 marks)

9. Describe the aetiopathogenesis, morphology and complications of infective endocarditis.

(5 marks)

10. A 35 year old male complained of cough with expectoration, loss of weight and night sweats. Sputum examination revealed acid fast bacilli. Chest X-ray showed opacity in the right apex of the lung. Describe the possible morphological changes that can occur in the lung of this patient.

(5 marks)

11. Compare the characteristic clinicopathological features of two malignant thyroid tumours.

(5 marks)

12. Draw a concept map to depict the classification, causes and consequences of renal stones.

(2+2+1 = 5 marks)

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MANIPAL UNIVERSITY

MBBS PHASE I STAGE II DEGREE EXAMINATION – AUGUST 2013

SUBJECT: PATHOLOGY – II (MCQs)

Thursday, August 08, 2013

Time: 11:30 – 12:30 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 contains

101. Epithelioid cells
102. Loops of capillaries
103. Myofibroblasts

Gangrene

104. Is a type of apoptosis
105. That occurs in the intestine is usually of the dry type
106. Caused by Clostridium perfringens is called gas gangrene

Down's syndrome is

107. A sex chromosomal abnormality
108. Also known as trisomy 21
109. Associated with gynaecomastia and atrophic testis
110. More likely to occur in children of young mothers

Chronic inflammation is characterised by

111. Presence of numerous histiocytes
112. Production of protein rich fluid
113. Release of bradykinin
114. 'Triple response'
115. Few neutrophils

Systemic effects of inflammation include

116. Weight loss
117. Amyloidosis
118. Bone marrow suppression
119. Iron overload
120. Increase in erythrocyte sedimentation rate

Multiple myeloma is characterised by

121. Bone pain
122. Osteolytic lesions on x-ray
123. Monoclonal immunoglobulin peak on protein electrophoresis

Chronic myeloid leukaemia is characterised by

124. More than 20% blasts in the marrow
125. Philadelphia chromosome
126. Massive splenomegaly
127. Basophilia

Vitamin B12 deficiency is characterised by

128. Impaired RNA synthesis
129. Microcytes in the peripheral smear
130. Absent Perl's staining of bone marrow

Benign tumours

131. Are localised
132. Have well circumscribed borders
133. Are capable of metastasis

Clinical effects of tumour include

134. Anaemia
135. Weight gain
136. Ulceration
137. Cachexia

Tumours that metastasise include

138. Seminoma
139. Lipoma
140. Osteosarcoma

Regarding chronic peptic ulcers

141. Breakdown of mucosal defense is much more important than excess acid production in duodenal ulcer
142. Perforation is a complication
143. Pyloric stenosis results from progressive fibrosis and cicatrisation of the ulcer

Regarding gastric carcinoma

144. Diffuse type of adenocarcinoma has a better prognosis than intestinal type
145. Helicobacter pylori associated chronic gastritis has an increased risk of cancer
146. Early gastric cancer can show metastasis to regional lymph nodes

Regarding oesophageal carcinomas

147. Most adenocarcinomas arise from Barrett's oesophagus
148. Adenocarcinomas are more common in the upper one third of the oesophagus
149. High grade dysplasia progresses to invasive squamous cell carcinoma
150. Squamous cell carcinomas are associated with very poor prognosis

Regarding Wilson's disease

151. It is also called as hepatolenticular degeneration
152. Copper usually accumulates in liver
153. Serum ceruloplasmin level is increased
154. It is treated with penicillamine

Intra-hepatic causes of jaundice include

155. Hereditary spherocytosis
156. Alcoholic hepatitis
157. Cholelithiasis

Clinical features of chronic liver disease include

158. Ascites
159. Gynaecomastia
160. Haemoptysis

Microscopic features of lepromatous leprosy (polar) include

201. Granuloma in the dermis
202. Grenz zone
203. Scarcity of bacilli in the lesion
204. Intense T cell lymphocytic response

Systemic lupus erythematosus

205. Is characterised by auto-antibodies to DNA and other nuclear components
206. Most commonly affects metatarsophalangeal joint of first toe
207. Is associated with raised serum uric acid levels

Duchenne muscular dystrophy is

208. A disease of skeletal muscle
209. Associated with abnormal muscle innervations
210. Typically a disease of elderly women

Multiple sclerosis

211. Affects persons between the ages 20 and 40 years
212. Follows a relapsing and remitting course
213. Shows characteristic amyloid plaques in the brain
214. Is an autoimmune disorder

Clinical effects of arterial thrombus include

215. Systemic embolism
216. Infarction of solid organs
217. Thrombophlebitis

Shock due to increased vascular permeability is caused by

218. Bacterial toxaemia
219. Anaphylaxis
220. Acute blood loss

Complications encountered in atherosclerosis include

221. Formation of thrombus
222. Plaque rupture
223. Capillary microangiopathy
224. Embolism
225. Vasculitis

Acute myocardial infarction

226. Of the subendocardial type show good initial clinical response
227. After 3-6 weeks show granulation tissue
228. Shows elevated alkaline phosphatase within 4 hours
229. Is complicated by arrhythmias in the first few days
230. Can sometimes be silent and asymptomatic

Squamous cell carcinoma of lung is

231. Closely associated with cigarette smoking
232. Almost always hilar in location
233. Also known as 'oat cell carcinoma'

Hyaline membrane disease

234. Is associated with Charcot-Leyden crystals
235. Is caused by oxygen toxicity
236. Leads to diffuse alveolar damage

Bronchopneumonia

237. Involves only one lobe of the lung
238. Leads to patchy consolidation of the lung
239. Occurs commonly in old age and infants
240. Is commonly caused by streptococcus pneumoniae

With regard to benign nodular hyperplasia of prostate

241. It usually involves the peri-urethral group of prostatic glands
242. There is hyperplasia of both glands and stroma
243. It is premalignant

Characteristics of hydatidiform mole include

244. Swollen chorionic villi and trophoblastic proliferation
245. High levels of human chorionic gonadotrophin
246. Higher incidence of choriocarcinoma
247. Uterine size larger for the gestational age

In fibrocystic disease of the breast

248. Adenosis refers to enlargement of breast lobules
249. Epithelial hyperplasia occurs in interlobular and intralobular ducts
250. Apocrine metaplasia is a malignant change

Regarding glomerular disease

251. Minimal change disease is the commonest cause of nephrotic syndrome in children
252. Crescentric glomerulonephritis has excellent prognosis
253. Membranous glomerulonephritis is characterized by capillary wall thickening, proliferation of epithelial cells and inflammation

Acute tubular necrosis

254. Causes irreversible acute renal failure
255. Clinically manifests as initial oliguric phase followed by diuretic phase
256. Is a complication of profound hypotension

Regarding carcinomas of the bladder

257. Adenocarcinomas are the commonest histological type
258. Calculi predispose to transitional cell carcinoma
259. Painless haematuria is the commonest presenting feature of transitional cell carcinoma
260. Transitional cell carcinomas with a papillary growth are usually low grade tumours