

MANIPAL UNIVERSITY
MELAKA MANIPAL MEDICAL COLLEGE (MANIPAL CAMPUS)
MBBS PHASE - I STAGE - II DEGREE EXAMINATION - SEPTEMBER 2016
SUBJECT : PATHOLOGY - PAPER I (ESSAY)

Saturday, September 10, 2016

Time : 2.00 - 4.00 Hrs.

Max. Marks : 60

1. Discuss the process of healing by first and second intention with the help of suitable diagrams.
($2\frac{1}{2} + 2\frac{1}{2} = 5$ marks)
2. Discuss the cellular events involved in acute inflammation with the help of suitable diagrams.
(5 marks)
3. A 60 year old female presented with severe low backache and generalized weakness. Lab investigation showed ESR of 120 mm/hr and M band on serum protein electrophoresis.
 - 3A. What is the diagnosis?
 - 3B. Discuss the pathogenesis of the above condition.
 - 3C. Discuss the blood and bone marrow changes in the above condition.
 ($\frac{1}{2} + 2 + 2\frac{1}{2} = 5$ marks)
4. Describe the steps of metastatic cascade with the help of a diagram.
(5 marks)
5. In a tabular format, list the differences between a benign and malignant gastric ulcer. Explain the morphological types of gastric carcinoma.
($1\frac{1}{2} + 3\frac{1}{2} = 5$ marks)
6. Explain the aetiopathogenesis of gall stones. Mention the clinical features and complications of gall stones.
($2\frac{1}{2} + 1 + 1\frac{1}{2} = 5$ marks)
7. Describe the clinicopathological features of malignant melanoma of skin.
(5 marks)
8. A 49 year old lady developed sudden onset of inability to move the left side of her body. The condition worsened even after 12 hours, but she remained conscious. Past history suggested similar short episodes in the past one year. Explain the aetiopathogenesis and morphology of the possible cause of stroke in this case.
($3 + 2 = 5$ marks)

9. Describe the sequence of events which take place in the coronary artery that can cause myocardial infarction. What are the morphological changes seen in the heart following a myocardial infarction?

(3+2 = 5 marks)

10. Mention the major histologic types of primary lung carcinoma. Describe the aetiology and morphology of one common type of lung carcinoma.

(2+3 = 5 marks)

11. Describe the aetiopathogenesis of type 1 and type 2 diabetes mellitus.

(2½+2½ = 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 2016

SUBJECT : PATHOLOGY – PAPER II (MTF)

Saturday, September 10, 2016

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.

Regarding Down's syndrome

101. It is more frequently seen in children born to elderly mothers
102. It first manifests at puberty
103. There is failure of development of secondary sexual characteristics.
104. It is due to a single gene defect

Factors which impair wound healing include

105. Vitamin B12 deficiency
106. Excess corticosteroids
107. Diabetes insipidus

Regarding apoptosis

108. There is cell swelling and lysis
109. It is an energy-dependent process
110. It induces an inflammatory response

Example of serous inflammation include

111. Peritonitis
112. Empyema
113. Acute synovitis

A granuloma is composed of

114. Epithelioid histiocytes
115. Proliferating capillaries
116. Histiocytic giant cells

The following chemical mediators and their actions are correctly matched

117. Prostaglandin A₂: Platelet aggregation
118. C₃a and C₅a: Opsonization
119. Slow reacting substance of anaphylaxis: Type III hypersensitivity reaction
120. Histamine : Vasodilation

In megaloblastic anaemia

121. Neutrophils show hypersegmentation
122. Pancytopenia is frequently present
123. Polychromasia on the blood film is in proportion with severity of anaemia

Regarding chronic leukaemia

124. It is seen commonly in children
125. LAP score is decreased in chronic myeloid leukemia(CML)
126. Blast count is greater than 20%
127. t(15:17) takes place in CML

Sickle cell disease is

128. Due to substitution of glutamic acid for valine in position 6 in the beta globin chain
129. Characterized by a single band of HbS on electrophoresis
130. Characterized by episodes of tissue infarction and chronic hemolysis

Premalignant lesions / conditions include

131. Hepatic cirrhosis
132. Cervical intraepithelial neoplasia
133. Adenomatous polyps of the colon

Regarding radiation carcinogenesis

134. Ultraviolet B is associated with skin cancer
135. Incidence of leukaemia is higher in the people who work in radiology departments
136. Therapeutic radiation exposure is not associated with cancer development

Principle characteristics of benign tumours include

137. Invasion
138. Metastasis
139. Slow growth rate
- 140 Encapsulation

Regarding pleomorphic adenoma of the parotid gland

141. It is a pre-malignant lesion
142. Facial nerve palsy is a surgical complication
143. It is a teratoma and hence called a mixed tumour
144. Recurrence of the tumour is seen after surgical removal

The features of Crohn's disease include

145. Diffuse involvement of colon
146. Transmural inflammation
147. Non-caseating granulomas

Colonic polyps with high risk of malignancy include

148. Hamartomatous polyps
149. Familial adenomatous polyposis
150. Metaplastic polyps

The following diseases and the serological markers are correctly matched

151. Primary biliary cirrhosis: Anti-smooth muscle antibody
152. Hemochromatosis: Ferritin
153. Hepatocellular carcinoma: Alpha-feto protein

Carcinoma of pancreas

154. Is commonly seen in the tail of pancreas
155. Presents with weight loss and Trousseau's sign
156. Can cause obstructive jaundice

Histological features of viral hepatitis include

157. Cytoplasmic swelling
158. Mallory hyaline bodies
159. Cholestasis
160. Kupffer cell hyperplasia

Basal cell carcinoma

201. Spreads by the lymphatic route
202. Is synonymous with keratoacanthoma
203. Shows keratin pearls

Chondrosarcoma

204. Is a primitive neuroectodermal tumour
205. Shows malignant osteoid and osteoblasts
206. Is characterized by Homer Wright rosettes

Regarding gout

207. It is an autoimmune disease
208. First metacarpal joints are commonly involved
209. Monosodium urate crystals are deposited in the joints involved
210. Females are more commonly affected than males

Regarding reactive (secondary) amyloidosis

211. The amyloid substance seen is AL amyloid
212. Rheumatoid disease can predispose to this condition
213. It shows localized amyloid deposition.

Dystrophic calcification

214. Is due to hypercalcemia
215. Occurs in previously damaged tissue
216. Is seen in fat necrosis

Cerebral abscess

217. Shows capsule formed by granulation tissue
218. Enlarges to become multiloculated
219. Follows middle ear infection
220. Is diagnosed by lumbar puncture

The cardiovascular changes due to benign hypertension include

221. Left ventricular hypertrophy
222. Capillary microangiopathy
223. Fibrinoid necrosis of small arteries and arterioles

Thromboangiitis obliterans

224. Is also known as Takayasu's disease
225. Is associated with smoking
226. Causes gangrene of toes and fingers

Infective endocarditis

227. Results in immune mediated destruction of heart valves
228. Involves the aortic valve in drug addicts
229. Shows sterile vegetations on the heart valves
230. Can cause infarcts in the spleen

Lobar pneumonia

231. Reveals patchy consolidation of lungs
232. In the stage of grey hepatization shows exudation of red cells
233. If untreated, leads to infective endocarditis
234. Is most frequently caused by mycoplasma pneumonia

Regarding chronic obstructive pulmonary disease

235. Chronic bronchitis is said to be present when a patient has a continuous cough for 2 weeks in a year for 2 years
236. Panacinar emphysema is due to α 1-antitrypsin deficiency
237. Non-atopic asthma is induced by aspirin

Regarding respiratory distress syndrome

238. Infantile respiratory distress syndrome is due to surfactant deficiency
239. Steroid administration to expectant mothers reduces chances of hyaline membrane disease in the new born
240. Adult respiratory distress syndrome follows a classical case of acute lobar pneumonia

Pheochromocytoma is

241. Derived from the adrenal cortical cells
242. A malignant tumor
243. A treatable cause of hypertension
244. Associated with increased urinary excretion of 5-hydroxyindole- acetic acid (SHIAA)

Regarding fibrocystic change of breast

245. It causes palpable lump mimicking breast cancer
246. The incidence increases after menopause
247. Apocrine metaplasia is one of the histological finding

Regarding ovarian tumours

248. Risk is increased with BRCA1 mutation
249. CA125 is a tumour marker
250. Borderline epithelial tumours show features of invasion

Nephrotic syndrome comprises of

251. Proteinuria
252. Hyperalbuminaemia
253. Lipiduria
254. Oedema

Regarding autosomal dominant polycystic kidney disease

255. It is a secondary renal disease
256. The condition may be bilateral
257. The cysts are formed at all the levels of the nephron

Regarding diabetic glomerulopathy

258. Capillary wall thickening is not seen
259. It results due to accumulation of advanced glycation end products
260. Mesangial matrix expansion causes diffuse diabetic glomerulosclerosis

