

M.B.B.S. SECOND PROFESSIONAL EXAMINATION, JULY-2020
PATHOLOGY
PAPER - FIRST

[Time allotted: Three hours]

[Max Marks: 40]

Q. 1. Multiple choice questions (attempt all MCQs in the allotted first 20 minutes in the OMR sheet) (½ x 16 = 08)

SET - A

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| <p>1. Arterial thrombus is characterized by all except:</p> <ol style="list-style-type: none"> a. Lines of Zahn b. Attachment to vessel wall c. Resembles coagulated blood d. May be mural <p>2. Smoking is causative factor in all the following malignancies except:</p> <ol style="list-style-type: none"> a. Lung cancer b. Bladder cancer c. Laryngeal cancer d. Intestinal cancer <p>3. Leukotriene B₄ causes:</p> <ol style="list-style-type: none"> a. Vasoconstriction b. Vasodilatation c. Platelet aggregation d. Chemotaxis <p>4. Following are the components of granulation tissue except:</p> <ol style="list-style-type: none"> a. Capillaries b. Necrotic cells c. Fibroblasts d. Collagen fibrils <p>5. Wear and tear pigment of the body is:</p> <ol style="list-style-type: none"> a. Hemosiderin b. Melanin c. Bilirubin d. Lipofuscin <p>6. Apoptosis is inhibited by:</p> <ol style="list-style-type: none"> a. p53 b. n-myl c. ras d. bcl 2 <p>7. Secondary amyloidosis is observed in all except:</p> <ol style="list-style-type: none"> a. Chronic osteomyelitis b. Crohn's disease c. Bronchiectasis d. Carcinoid appendix <p>8. An 8 years old boy was stung by bee on the leg followed by swelling of the whole leg in 30 minutes. The reaction is probably mediated by:</p> <ol style="list-style-type: none"> a. IgG b. IgM c. IgE d. Complement | <p>9. Which of the following does not undergo hyperplasia?</p> <ol style="list-style-type: none"> a. Liver b. Kidney c. Heart d. Skin epithelium <p>10. Which is false about metaplasia?</p> <ol style="list-style-type: none"> a. Barrett's oesophagus is an example of metaplasia b. Metaplasia is reversible c. Metaplasia is always a precancerous condition d. In squamous metaplasia the columnar cell differentiates into the squamous cell <p>11. HbA₂ is increased in:</p> <ol style="list-style-type: none"> a. Sickle cell anemia b. Thalassemia major c. Megaloblastic anemia d. Iron deficiency anemia <p>12. The highest value of ESR is likely to be seen in:</p> <ol style="list-style-type: none"> a. Multiple myeloma b. Tuberculosis c. Rheumatic fever d. Polycythemia vera <p>13. Increased serum ferritin is seen in:</p> <ol style="list-style-type: none"> a. Thalassemia major b. Megaloblastic anemia c. Iron deficiency anemia d. Aplastic anemia <p>14. Leishman's stain contains eosin and methylene blue dissolved in:</p> <ol style="list-style-type: none"> a. Ethyl alcohol b. Methyl alcohol c. Buffered water d. Acetone <p>15. M spike in multiple myeloma is usually due to:</p> <ol style="list-style-type: none"> a. IgM b. IgG c. IgE d. Light chains <p>16. Auer rods are characteristically seen in:</p> <ol style="list-style-type: none"> a. AML M₀ b. AML M₅ c. AML M₂ d. ALL L₂ |
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Note: Attempt all questions.

Draw suitable diagrams wherever necessary.

- Q. 2. Give reasons for:** (1 x 4 = 04)
- Reperfusion injury.
 - Alcohol is injurious to health.
 - Serum bilirubin is raised in hemolytic anaemia.
 - Hemoglobin level and RBC count is more in males than females.
- Q. 3. Problem based question:** (1 +2+1 = 04)
- A 48 year old female had a knee replacement surgery. 4th post operation day she developed pain in calf region for which her son massaged her leg. 4 hrs later she developed severe dyspnoea, respiratory distress and could not be saved:
- What is your diagnosis?
 - What other complications can this phenomenon cause?
 - A similar situation is seen after fracture of long bones. Explain.
- Q. 4. Write short notes on:** (2 x 4 = 08)
- Explain the morphological pattern of acute inflammation.
 - Draw a labelled diagram of peripheral smear in thalassemia major.
 - Write a short note on T-lymphocyte.
 - Write about Klinefelter's syndrome.
- Q. 5. (i)** Discuss lab diagnosis of cancer. Also enumerate differences between benign and malignant tumours. (2 + 2 = 04)
- (ii)** Discuss etiology and morphological changes in peripheral smear and bone marrow in a case of megaloblastic anaemia. What other investigations are indicated in this case. (1+1+2 = 04)
- Q. 6. Write in brief:** (2 x 4 = 08)
- Causes of delayed wound healing
 - Labeled diagram of well formed epithelioid granuloma
 - Dystrophic calcification
 - Fate of thrombus

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Q. 1. Multiple choice questions (attempt all MCQs in the allotted first 20 minutes in the OMR sheet) ($\frac{1}{2} \times 16 = 08$)**SET - A**

1. Which of the following is the least common site of atherosclerotic lesions?
 - a. Aortic bifurcation
 - b. Pulmonary arterial trunk
 - c. Common carotid artery
 - d. Middle cerebral artery
2. In primary tuberculosis, all of the following may be seen **except**:
 - a. Cavitation
 - b. Caseation
 - c. Calcification
 - d. Langhans giant cell
3. Scar in lung tissue may get transformed into:
 - a. Adenocarcinoma
 - b. Oat cell carcinoma
 - c. Squamous cell carcinoma
 - d. Columnar cell carcinoma
4. Pathological changes of diabetic nephropathy are all **except**:
 - a. Fibrin caps and capsular drops
 - b. Kimmelstein-Wilson lesion
 - c. Basement membrane thickening
 - d. Focal glomerular sclerosis
5. Microalbuminuria is defined as protein levels of:
 - a. 100-150 mg/d
 - b. 151-200 mg/d
 - c. 30-300 mg/d
 - d. 301-600 mg/d
6. In early gastric carcinoma, malignancy is confined to:
 - a. Mucosa
 - b. Mucosa and submucosa
 - c. Gastric wall without lymph node metastasis
 - d. Gastric glands
7. Anti-gliadin antibodies are detectable in:
 - a. Crohn's disease
 - b. Whipple's disease
 - c. Celiac disease
 - d. Intestinal lymphoma
8. Barrett esophagus can result from:
 - a. H Pylori infection
 - b. H Simplex infection
 - c. Gastroesophageal reflux
 - d. Varices
9. Which of the diseases causes fatty change in liver?
 - a. Hepatitis B virus infection
 - b. Wilson's disease
 - c. Hepatitis C infection
 - d. Chronic alcoholism
10. Piecemeal necrosis is pathognomonic of:
 - a. Alcoholic liver disease
 - b. Chronic active hepatitis
 - c. Toxic hepatitis
 - d. Wilson's disease
11. Increased susceptibility to breast cancer is likely to be associated with a mutation in the following gene:
 - a. p53
 - b. BRCA-1
 - c. Retinoblastoma (Rb)
 - d. H-Ras
12. Characteristic microscopic feature of osteogenic sarcoma is:
 - a. Osteoid formation
 - b. Osteoid formation by mesenchymal cells with pleomorphism
 - c. Codman's triangle
 - d. Predominant osteoclasts
13. The commonest malignant bone tumor is:
 - a. Multiple myeloma
 - b. Osteosarcoma
 - c. Ewing's sarcoma
 - d. Giant cell tumor
14. The tissue of origin of Kaposi's sarcoma is:
 - a. Lymphoid
 - b. Vascular
 - c. Neural
 - d. Muscular
15. Commonest site of varices in portal hypertension is:
 - a. Oesophagus
 - b. Anal canal
 - c. Periumbilical
 - d. Liver
16. Most common site of metastasis of lung carcinoma is:
 - a. Brain
 - b. Kidney
 - c. Adrenal
 - d. Testes

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Note: Attempt all questions.
Draw suitable diagrams wherever necessary.

- Q. 2. Give reasons:** **(1 x 4 = 04)**
- a. Hepatitis A is not tested in blood to be transfused.
 - b. There is polydipsia in diabetes mellitus.
 - c. Pleomorphic adenoma recurs after resection.
 - d. UTI is more common in women.
- Q. 3. Problem based question:** **(1 x 4 = 04)**
- 30 years female patient presented to emergency with hematemesis. On examination, she had ascitis & jaundice. She gave history of caesarean section 24 months back. At that time she was transfused 2 units of blood.
- a. What is your diagnosis?
 - b. Classify jaundice.
 - c. What are the possible complications of this disease?
 - d. What laboratory investigations will you do to arrive at a diagnosis?
- Q. 4. Write short notes on:** **(2 x 4 = 08)**
- a. Hashimotos thyroiditis
 - b. Renal stones
 - c. H. pylori and its mechanism of action
 - d. Lung abscess
- Q. 5. (i) Discuss etiopathogenesis, morphology and lab diagnosis of myocardial infarction.** **(04)**
- (ii) Enumerate ulcerative lesions of GIT. Tabulate differences between ulcerative colitis and Crohn's disease.** **(1+3 = 04)**
- Q. 6. Write in brief about:** **(2 x 4 = 08)**
- a. Draw labeled diagram of BCC.
 - b. Tabulate differences between benign and malignant ulcer of stomach.
 - c. Classify bone tumors.
 - d. Enumerate types of stones found in gall bladder and list the risk factors.