

Question Paper

Exam Date & Time: 04-04-2022 (10:20 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION SECOND MBBS DEGREE (CBME) EXAMINATION – APRIL 2022 SUBJECT: PATHOLOGY - PAPER I

Marks: 80

Duration: 160 mins.

All questions are compulsory.

Illustrate your answers with diagrams flowcharts, tables, etc., wherever necessary.

- 1) A 35-year-old pregnant woman complains of easy fatigue for many months and has developed a taste for eating mud. She has three living children. Physical examination reveals a pale conjunctiva. Stool examination is negative for occult blood. (10)
 - 1A. What is your diagnosis in this patient? Justify your diagnosis.
 - 1B. Propose the investigations with the interpretations required to confirm your diagnosis.
 - 1C. Draw a labelled diagram of the expected peripheral smear findings.

- 2) Tabulate the differences between benign and malignant tumours and discuss the metastatic cascade with the help of a labelled diagram. (10)

3. **SHORT NOTES:**
 - 3A) Tabulate the differences between apoptosis and necrosis. (4)
 - 3B) Define and describe the types of gangrene. (4)
 - 3C) Classify the major types of shock with a brief note on the mechanism and relevant clinical examples. (4)
 - 3D) Discuss fate of a thrombus (4)
 - 3E) List the various blood products for transfusion and discuss the investigations in transfusion reactions. (4)
 - 3F) Role of PAP smear in cervical cancer screening (4)
 - 3G) Discuss the laboratory investigations and diagnosis in an elderly male with massive splenomegaly and marked elevated WBC count. (4)
 - 3H) Discuss the aetiopathogenesis and laboratory diagnosis of aplastic anemia. (4)
 - 3I) Classify and describe the morphological features and markers of Hodgkin lymphoma. (4)
 - 3J) Enumerate the chemical mediators of inflammation & briefly describe the mechanism of action of any TWO of them. (4)
 - 3K) List 4 tumor markers and the associated tumors. (4)
 - 3L) Describe and briefly discuss the cellular adaptations to injury. (4)
 - 3M) Enumerate the causes of eosinophilia. (4)
 - 3N) Describe the gross and microscopic findings of tuberculous lymphadenitis. (4)
 - 3O) Tabulate the difference between reversible and irreversible cell injury. (4)

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Question Paper

Exam Date & Time: 05-Apr-2022 (10:20 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND PROFESSIONAL YEAR MBBS DEGREE EXAMINATION - APRIL 2022
SUBJECT: PATHOLOGY - PAPER II
(REPEATERS - CBME BATCH)

Marks: 80

Duration: 160 mins.

Answer all the questions.

Illustrate your answers with diagrams wherever necessary.

1. A 68-year-old man complains of cramping abdominal pain, recent change in bowel habits and significant weight loss. Hematological investigations show microcytic hypochromic anemia. Colonoscopy reveals a circumferential growth in the sigmoid colon.

- 1A) What is the diagnosis in this case? (1)
- 1B) Discuss briefly the etiopathogenesis of this condition. (5)
- 1C) Describe the morphology of this condition. (4)
- 2) A 55-year-old woman presented with weight loss, flank pain and intermittent hematuria. Examination revealed a palpable mass in the left lumbar region: (10)
- i) What is the diagnosis?
- ii) Discuss briefly the pathogenesis of this condition.
- iii) Mention the histologic subtypes with a note on the morphology of the conventional histologic type.
- (1+3+2+4 = 10 marks)

3. Write short notes on:

- 3A) Describe the outcomes of atherosclerotic plaque formation (4)
- 3B) Describe the morphology of acute rheumatic fever. (4)
- 3C) Mention the complications of myocardial infarction. (4)
- 3D) Explain briefly pathogenesis of asbestos-related diseases. (4)
- 3E) Illustrate with appropriate diagrams the morphology of primary tuberculosis. (4)
- 3F) Classification of malignant epithelial lung tumors. (4)
- 3G) Discuss in brief the pathogenesis of peptic ulcer disease. (4)
- 3H) Relate the potential outcomes of hepatitis B infection with the help of a flowchart. (4)

- 3I) Schematic representation of pathogenesis of benign prostatic hyperplasia. (4)
- 3J) List eight prognostic factors of breast carcinoma. (4)
- 3K) Describe briefly the screening and diagnosis of carcinoma cervix. (4)
- 3L) Discuss the morphology of fibroadenoma. (4)
- 3M) List the complications of osteomyelitis. (4)
- 3N) Summarize the pathogenesis of Hashimoto thyroiditis. (4)
- 3O) Describe the morphology of melanoma. (4)

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