

Printing Pages :2

Paper Code: 211

Enrollment No.

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M.B.B.S.

Second Prof. Year Examination

Subject Code 211

Subject Name – Pathology-I

(General Pathology and hematology)

[Time: Three Hours]

[Max. Marks: 100]

Note: Attempt all the questions. Use separate answer sheets for Section A & Section B. Parts of a question must be attempted in sequence. Draw well-labeled diagrams wherever necessary.

MCQs (separate sheet will be provided)

[01x20=20]

SECTION A

Q 1. A 26-year-old female was admitted with high-grade fever and hypotension. Blood culture showed gram-negative bacteria. She dies due to multi-organ failure. (1+5+4=10)

- What is your Diagnosis?
- Discuss the etiopathogenesis of this condition.
- Describe the morphological changes of the lung and kidney in this disease.

Q 2. Describe in brief.

(5x5=25)

- Microbial carcinogenesis.
- Structure of HIV (diagram only) and Routes of Transmission
- Healing by primary intention.
- Down's syndrome
- Type IV hypersensitivity

[P.T.O.]

Q3. A 52-year-old male presented with acute chest pain with sweating. He had a history of diabetes mellitus. Investigation revealed myocardial infarction. After supportive care, he is advised to take an angiogram by the attending cardiologist. He is very apprehensive to undergo the procedure as he is the sole decision-maker in the family. (5)

Explain, how as a medical student you will help him to make a decision to undergo an angiogram respecting his autonomy.

Section B

Q 1. A 43-year-old female presents to medical OPD with complaints of easy fatigability and breathlessness for 3 months. She had menorrhagia in the last 6 months. On examination, she had Pallor and koilonychias.

(1+5+4=10)

- a) What is your diagnosis?
- b) Describe the peripheral blood picture and bone marrow findings in this case.
- c) Discuss RBC indices and other laboratory findings with reference to this case.

Q 2. Write short notes on-

(5x5=25)

- a) Pathogenesis and Morphology of Chronic Myeloid Leukemia
- b) Difference between Hodgkin's and Non-Hodgkin's lymphoma
- c) Multiple myeloma
- d) Peripheral and bone marrow findings in megaloblastic anemia
- e) Beta thalassemia major

Q 3. Write briefly

(2.5x2=5)

- a) Anaemia of chronic disease
- b) Transfusion reaction

Enrollment No.

M.B.B.S.

Invigilator's Signature

Second Prof. Examination

Subject Code -211

Subject Name - Pathology-I-

Multiple Choice Questions

[Time: 15 Minutes]

[Max. Marks: 20]

Note: Write your Enroll. Number on the Question paper. Each MCQ carries a half mark. Each Question has only one best correct response. Encircle the correct answer letter. More than one encircle or any overwriting will be considered as a wrong answer. There is no negative marking. DO NOT use a pencil for writing.

Multiple Choice Questions

1. Metaplasia:
 - a. Is irreversible
 - b. Is commonly a change from squamous to columnar epithelium
 - c. An example is the transformation of epithelial cells to chondroblasts
 - d. Retinoids may play a role
2. Coagulative necrosis usually results from:
 - a. Abscess Formation
 - b. Ischemia
 - c. Trauma
 - d. Tuberculosis
3. Apoptosis is characterized by all except
 - a. Programmed cell death
 - b. Plasma membrane of apoptotic cells remain intact
 - c. Elicit inflammatory response
 - d. Shrinkage of cell size
4. Which of the following red cell abnormalities is most indicative of hemolysis?
 - a. Target cells
 - b. Schistocytes
 - c. Basophilic stippling
 - d. Heinz bodies
5. A 23-year-old female was in her 25 th week of her pregnancy when she ceased to feel foetal movements. Three weeks later she has still not delivered but she suddenly develops dyspnoea, cyanosis, and hypotension. She has large ecchymosis over her skin and Malena. She was found to have elevated PT , PTT, and decreased platelet count. Her plasma fibrinogen is markedly decreased and fibrin split products are detected. The most likely cause of her bleeding diathesis is
 - a. Increased vascular fragility
 - b. Toxic injury to the endothelium
 - c. Consumption coagulopathy
 - d. effects of platelet adhesion and aggregation.
6. Beta-Thalassemia Major is characterized by all except
 - a. HB levels of 3 to 6 gm/dl
 - b. Red cells completely lack Hb A
 - c. Hydrops fetalis
 - d. Hb F is markedly elevated
7. Megaloblastic anaemias are characterized by all except
 - a. Macro-ovalocytes
 - b. MCHC is elevated
 - c. Reticulocyte count is low
 - d. Red cells appear hyperchromic
8. Autoantibodies in chronic ITP in overwhelming majority are of which class
 - a. IgG
 - b. IgA
 - c. IgM
 - d. Ig E
9. For Hemophilia A all are true except
 - a. Factor VIII deficiency
 - b. Autosomal recessive trait
 - c. Mainly males and homozygous females affected
 - d. Have a prolonged PTT and a normal PT

10. For Hodgkin Lymphoma which is true
 - a. Extra-nodal presentation is common
 - b. Non-contiguous spread
 - c. Localized to a single axial group of nodes
 - d. Waldeyer ring and mesenteric nodes commonly involved
11. CML is characterized by which mutations with 100 % frequency
 - a. KIT point mutations
 - b. MPL point mutations
 - c. BCR-ABL fusion gene
 - d. JAK2 mutations
12. All are X-linked recessive disorders except:
 - a. Duchene muscular dystrophy
 - b. Haemophilia A and B
 - c. Phenylketonuria
 - d. G-6-PD deficiency
13. A 19-year-old female of average intelligence and short stature is being evaluated for amenorrhea. Taking a history, you discover that she has never menstruated. Physical examination reveals that she has a broad chest and her elbows turn outward when her arms are at her sides (cubitus valgus). She has a "thick neck" and you notice the absence of secondary female characteristics. Serum estrogen levels are found to be decreased, while both FSH and LH levels are increased. What is the correct diagnosis?
 - a. Fragile X syndrome
 - b. Klinefelter's syndrome
 - c. Multi-X syndrome
 - d. Turner's syndrome
14. In autoimmune haemolytic anaemia, the following type of immunologic tissue injury is involved:
 - a. Antibody mediated (type II) hypersensitivity
 - b. Immediate (type I) hypersensitivity
 - c. Immune complex mediated (type III) hypersensitivity
 - d. T cell mediated (type IV) hypersensitivity
15. Structure of HIV contains all except
 - a. Major capsid protein p24
 - b. Nucleo-capsid protein p7/p8
 - c. Viral enzymes (protease, reverse transcriptase & integrase)
 - d. HIV RNA genome contains the gag, pol & env genes
16. CA 125 is a tumor marker for which neoplasia
 - a. Testicular tumor
 - b. Ovarian tumor
 - c. Embryonal cell carcinoma
 - d. Hepatocellular carcinoma
17. White infarct is seen in all except
 - a. Spleen
 - b. Heart
 - c. Lung
 - d. Kidney
18. Important examples of tumour suppressor genes implicated in human cancers include the following except:
 - a. RB gene
 - b. TP53
 - c. APC
 - d. ERB-B
19. Obesity is due to:
 - a. Hyperplasia of adipocytes only
 - b. Hypertrophy of adipocytes only
 - c. Hyperplasia as well as hypertrophy of adipocytes
 - d. Fatty change in liver only
20. Which statement is true about Diapedesis
 - a. Leukocytes adhere transiently to the endothelium
 - b. Attachment of leukocytes to endothelial cells
 - c. Leukocytes assume a peripheral position along the endothelial surface.
 - d. migration of the leukocytes through the endothelium

Enrollment No.

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M.B.B.S.

Second Prof. Year Examination

Subject Code 212

Subject Name – Pathology-II

(SYSTEMIC PATHOLOGY)

[Time: Three Hours]

[Max. Marks: 100]

Note : Attempt all the questions. Use separate answer sheets for Section A & Section B. Parts of a question must be attempted in sequence. Draw well-labeled diagrams wherever necessary.

MCQs (separate sheet will be provided)

[01x20=20]

SECTION A

Q 1. A 49-year-old male, a known smoker and alcoholic with complaints of chest pain presented to the emergency ward. His ECG shows ST elevation and T wave inversion.
(1+4+2+3=10)

- a) What is your diagnosis?
- b) Write in detail about the pathogenesis and morphology of the disease.
- c) Write a note on the investigations needed.
- d) Discuss complications

Q 2. Describe in brief. **(5x5=25)**

- a) Diabetic microangiopathy
- b) Pathological findings in Chronic pyelonephritis.
- c) Patho morphology of Atherosclerosis
- d) Importance and applications of FNAC in thyroid lesions.
- e) Morphology and Complications of Lobar Pneumonia

Q 3. Write a short note **(2.5x 2=5)**

- a) Cardiac valvular vegetations
- b) Clinical features of Thyrotoxicosis

[P.T.O.]

SECTION B

Q 1. A 53-year-old female presented to the surgical OPD with complaints of swelling in the Right side of breast, on examination the swelling was hard and fixed. Mammography shows microcalcifications. A needle core biopsy was taken.

(1+4+5=10)

- a) What is your diagnosis?
- b) Classify the lesion.
- c) Write about the morphology and prognostic factors of the lesion

Q 2. Write short notes on-

(5x5=25)

- a) Etiology and morphological features of Carcinoma cervix.
- b) Temporal changes in serologic markers in hepatitis B viral infection.
- c) Helicobacter pylori Gastritis
- d) Pathogenesis and morphology of Adenocarcinoma colon
- e) Papillary carcinoma thyroid

Q 3. Write Briefly

(2.5x2=5)

- a) Pyogenic osteomyelitis
- b) Endometriosis

Enrollment No.

M.B.B.S.

Invigilator's Signature

Subject Code -212

Second Prof. Examination

Subject Name - Pathology-II

Multiple Choice Questions

[Time: 15 Minutes]

[Max. Marks: 20]

Note: Write your Enroll. The number on the Question paper. Each MCQ carries a half mark. Each Question has only one best correct response. Encircle the correct answer letter. More than one encircle or any overwriting will be considered as wrong answer. There is no negative marking. DO NOT use a pencil for writing.

Multiple Choice questions

- The following type of carcinoma of the breast is characterized by an 'Indian file' pattern of tumour cells:
 - Infiltrating duct carcinoma
 - Invasive lobular carcinoma
 - Medullary carcinoma
 - Tubular carcinoma
- Haematogenous spread is rare and exceptional in following thyroid cancer:
 - Follicular carcinoma
 - Medullary carcinoma
 - Papillary carcinoma
 - Anaplastic carcinoma
- Long-term assessment of diabetes is provided by the following investigation:
 - Whole blood glucose estimation
 - Plasma glucose estimation
 - Capillary method of glucose estimation
 - Glycosylated haemoglobin
- Which one of the following statements is more characteristic of ulcerative colitis than of Crohn's disease?
 - Fibrosis may produce a "lead pipe" appearance with "creeping fat" around the outside of the gut
 - Inflammation begins in the rectum and extends proximally without skip lesions
 - Microscopy may reveal trans mural inflammation with noncaseating granulomas
 - Sudden abdominal pain may result from intestinal obstruction due to peri-colonic abscess
- The metabolic functions of Parathyroid Hormone include all except
 - Increases the renal tubular reabsorption of calcium
 - Increases the conversion of vitamin D to its active dihydroxy form in kidneys
 - Decreases urinary phosphate excretion
 - Augments gastrointestinal calcium absorption
- All are true regarding osteosarcoma except
 - RB mutations are present in up to 70% of sporadic osteosarcomas.
 - Bimodal age distribution
 - Almost 50% occur about the knee
 - Arise in the diaphyseal region of the long bones
- In spinal tap of acute pyogenic meningitis which is not present:
 - Cloudy or frankly purulent CSF under increased pressure,
 - About 90,000 neutrophils per cubic millimetre
 - Increased protein concentration
 - markedly increased glucose content.
- The cell of origin of meningioma is
 - Dura mater
 - Pia mater
 - Arachnoid cells
 - Choroid plexus
- The most thrombogenic constituent of atheroma is:
 - Fibrous cap
 - Lipid core
 - Foam cells
 - Smooth muscle cells

10. MacCallum's patch appears in the region of:
a. Pericardial surface in the posterior wall of left atrium
b. Pericardial surface in the posterior wall of left ventricle
c. Endocardial surface in the posterior wall of the left atrium
d. Endocardial surface in the posterior wall of the left ventricle
11. Lung abscess secondary to aspiration pneumonia develops more often in:
a. The lower lobe of right lung b. The lower lobe of the left lung
c. Upper lobe of either lung d. all lobes involved equally
12. Oral squamous cell carcinoma have a strong association EXCEPT
a. Tobacco smoking b. Submucosal fibrosis c. Chronic alcoholism d. HPV 16, 18
13. An upper gastrointestinal radiographic series reveals gastric outlet obstruction in a 53-year-old female who has had nausea vomiting and mild epigastric pain for several months. Upper endoscopy reveals an ulcerated 2 X 4 cm mass at the pylorus. Which of the following neoplasms is most likely to be seen on a biopsy of this mass?
a. Non Hodgkins lymphoma b. Neuroendocrine carcinoma
c. Squamous cell carcinoma d. Adenocarcinoma
14. In chronic hepatitis B and carrier state of HBV infection, the following antigen is detected on the nuclei of infected hepatocytes:
a. HBsAg b. HBeAg c. HBcAg d. HBV-DNA
15. Which is the most common type of renal cell carcinoma?
a. Clear cell carcinoma
b. Papillary carcinoma
c. Chromophobe carcinoma
d. Xp11 translocation carcinoma
16. Causes of the flea-bitten kidney include the following except:
a. Acute post-streptococcal GN
b. Rapidly progressive GN
c. Haemolytic uraemic syndrome
d. Benign nephrosclerosis
17. Carcinoma prostate most commonly involves:
a. Transitional zone of prostate b. Peripheral zone of prostate
c. Central zone of prostate d. Periurethral zone of prostate
18. In an undescended testis, the following tumour develops most often:
a. Seminoma b. Teratoma c. Choriocarcinoma d. Yolk sac tumour
19. The commonest site for endometriosis is:
a. Hernial sacs b. Vulva c. Ovaries d. Vagina
20. Characteristic mutation seen in endometrioid carcinoma is:
a. PTEN b. TP53 c. Rb d. K-ras
