2106000102010101-S
EXAMINATION MARCH-APRIL 2024
BACHELOR OF MEDICINE AND BACHELOR OF SURGERY (SECOND YEAR)
PATHOLOGY (PAPER - I) - LEVEL 1 OMR

[**Time: As Per Schedule]** **[Max. Marks: 100]**

Instructions:

1. **1. Fill up strictly the following details on your answer book**
   a. Name of the Examination **: BACHELOR OF MEDICINE AND BACHELOR OF SURGERY (SECOND YEAR)**
   b. Name of the Subject : **PATHOLOGY (PAPER - I) - LEVEL 1 OMR**
   c. Subject Code No : **2106000102010101-S**
2. Sketch neat and labelled diagram wherever necessary.
3. Figures to the right indicate full marks of the question.
4. All questions are compulsory.

Seat No:

Student's Signature

SECTION-I

Q.1 Multiple Choice Questions. **20**
(Instruction: Encircle the correct answer:)

1. The main cell in chronic inflammation:
   a) B-lymphocyte b) Plasma cell
   c) Macrophage d) Fibroblast

2. Bilateral hilar lymphadenopathy showing Non caseating granulomas is most characteristic of:
   a) Tuberculosis b) Sarcoidosis
   c) Systemic Lupus Erythematosus d) Leprosy

3. Earliest event in acute inflammation is :
   a) Vasodilatation b) RBC Rouleaux formation
   c) Increased vascular permeability d) Margination

4. The most specific stain for demonstration of amyloid is :

a) Methyl violet with metachromasia
b) PAS stain
c) Thioflavin S under fluorescence
d) Congo red with examination in polarized light

5. Apoptosis is :
   a) Cell death due to exogenous stimuli
   b) Due to activation of internally controlled programme
   c) Necrosis associated with putrefaction
   d) Subcellular level changes without any morphologic alterations.

6. In granuloma,epithelioid and giant cells are derived from:
   a) T lymphocytes b) Mat cells
   c) B lymphocytes d) Monocyte-macrophages

7. HLA B 27 is associated with increased risk of development of:
   a) Osteoarthritis b) Rheumatoid arthritis
   c) Ankylosing spondylitis d) Reiter's Syndrome

8. Bence - Jones Proteins are :
   a) Light chains of immunoglobulins
   b) Heavy chains of immunoglobulin
   c) Fc portion of immunoglobulin
   d) Microglobulin

9. Type of hypersensitivity reaction in Erythroblastosis Fetalis:
   a) Type I b) Type II
   c) Type III d) Type IV

10. Oedema in Nephrotic Syndrome is due to :
    a) Increased hydrostatic Pressure
    b) Decreased Plasma Osmotic Pressure
    c) Lymphatic Obstruction
    d) Increased Plasma Osmotic Pressure

11. What minimum percentage of sudden loss of blood volume causes death :
    a) 20% b) 50%
    c) 33% d) 75%

12. What is **FALSE** about Lyon Hypothesis?

a) Only one X chromosome is genetically active
b) There is random inactivation of other chromosome
c) Inactive X chromosome is seen as Barr body
d) Barr bodies are easily demonstrated in any epithelial cells.

13. Gaucher's disease is caused by deficiency of:
    a) Hexosaminades
    b) Sphingomylelinase
    c) Pyruate Kinase
    d) Glucocerebrosidase

14. Replacement of one adult cell type by another cell type is called:
    a) Metaplasia
    b) Hyperplasia
    c) Anaplasia
    d) Dysplasia

15. Bombay Phenotype are the individuals who:
    a) Lack of H genes and therefore H substance.
    b) Possess A and B antigen
    c) Secrete excessive amount of H substance
    d) Lack C,D,E antigens

16. Osteogenic sarcoma of femur usually metastasizes to:
    a) Inguinal lymphnodes
    b) Liver
    c) Lungs
    d) Paraaortic lymphnode

17. Amyloidosis in long term hemodialysis is due to:
    a) Transthyretin
    b) β_2 Microglobulin
    c) Amyloid associated protein.
    d) B amyloid protein

18. All are cardinal signs of inflammation except :
    a) Pain
    b) Redness
    c) Swelling
    d) Cyanosis

19. Oliguria implies 24 hrs urine output less than:
    a) 200ml
    b) 400ml
    c) 600ml
    d) 800ml

20. "Tombstone" appearance of cells is seen in which type of Necrosis?
    a) Fibrinoid
    b) Coagulative
    c) Liquefactive
    d) Fat

SECTION-II **40**

Q.2 Case based question (compulsory to attempt) **13**

20 yrs female presented with fatigue, rashes on bridge of nose and both cheeks, joint pain and blood picture showed pancytopenia,

a) What is the probable diagnosis? **1**
b) Describe the etiopathogenesis of the disease. **4**
c) Describe the first lab diagnostic test which was done earlier in patients Diagnosed with this disease. **3**
d) Write the immunofluorescence patterns seen in blood of such patient. **1**
e) Describe the morphology of major lesions seen in this disease. **4**

Q.3 Long Essay Questions **27**
(Attempt any 3 out of 4) (9 Marks Each)

1) Define Metastasis. Write three different routes of Metastasis. Describe Cell biology of Invasion and Metastasis Cascade. **1+3+5**

2) Describe various types of Cellular and plasma Blood components prepared from whole blood. Mention clinical use of each blood component. **5+4**

3) Describe the Vascular and cellular events of acute inflammatory response. **5+4**

4) Enumerate urine and blood investigations in diagnosis of Diabetes**.** **3+6**

SECTION-III **40**

Q.4 (Attempt any 8 out of 10) (5 marks Each)

1) Define Neoplasia. Difference between benign and malignant tumour.
2) Describe clinical features and underlying cytogenetic abnormalities of klinefelter's Syndrome.
3) Describe the etiopathogenesis of intracellular accumulation of Neutral fat in Liver.
4) Describe Free radical mediated cell injury.
5) Define Necrosis. Describe types of necrosis with their morphology.
6) Describe the structure of HIV Virus. enumerate the genes that code for Respective viral proteins.

7) Define Hypersensitivity. Describe the pathogenesis of Type I hypersensitivity reaction with 2 examples.
8) Difference between Kwashiorkor and Marasmus.
9) Difference between Transudate and Exudate.
10) Describe the Mechanism and effects of three stages of Shock.

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