03/24

The West Bengal University of Health Sciences

MBBS 2nd Professional Examination (New Regulation) March - April 2024

Full Marks: 100
Time: 3 hours

Subject: Pathology
Paper: I

*Attempt **all** questions. The figures in the margin indicate full marks.*

1.a) A 22 year old man develops severe pain in the right iliac fossa over the past two days. On physical examination, there is rebound tenderness on palpation over that area. Laparoscopic surgery is performed and the appendix is removed. The appendix on gross examination is found to be red swollen and covered by purulent exudate. 2+5+5+3

i) What is your provisional diagnosis?
ii) Describe the pathogenesis of this condition.
iii) Enumerate the role of leukocytes in this condition.
iv) List the expected outcomes of this condition.

b) A 50 year old vegan lady presented with progressive weakness, pallor, tingling and numbness of fingers. 2+6+7

i) What is your provisional diagnosis?
ii) Describe the pathogenesis of this condition.
iii) How will you proceed to confirm your diagnosis?

2. Answer the following: 10

a) Pathogenesis of granuloma formation.
b) Describe the vascular events in acute inflammation. What are the different systems in activation of complement cascade? Enumerate three derivatives of complement cascade and their role in acute inflammation. 2+3+3+2
c) Pathogenesis of renal edema. 10

3. Write short notes on: 2x5

a) Role of AETCOM in disclosing the biopsy report to a patient of breast cancer.
b) Laboratory features of sickle cell anaemia.

4. Explain the following statements: 5x4

a) P53 is the guardian of the genome.
b) Transfusion related diseases can be avoided.
c) Reticulocyte count can differentiate between primary causes of anemia.
d) Cytological characteristics of a malignant cell is unique.
e) Glomerulonephritis can be explained on immunological basis.

5. Choose the correct option for each of the following: 10×1

(i) Amyloid protein found in Alzheimer's disease is:
a) AA. b)AL.
c) Aβ. d) transthyretin.

(ii) Pale infarct is found in which of the following organs?
a) Kidney b) Heart
c) Both d) None

P.T.O

(iii) Which receptor is the likely initiator of inflammation in sepsis?
a) TLR.
b) G-Protein coupled receptor.
c) NOD 1.
d) NOD 2.

(iv) Which of the following is a protooncogene?
a) APC.
b) k-RAS.
c) VHL.
d) RB.

(v) Lysosomal accumulation of sphingomyelin occurs in:
a) Gaucher disease.
b) Niemann-Pick disease.
c) Tay-Sachs disease.
d) Von Gierke disease.

(vi) The earliest feature of iron deficiency anaemia is:
a) Low level of serum iron.
b) Low haemoglobin concentration.
c) Reduction in iron reserve forms like ferritin and hemosiderin.
d) Hypochromic microcytic RBC's in blood smear.

(vii) Aortic dissection is not associated with:
a) Alport syndrome.
b) Ehler's Danlos syndrome.
c) Marfan syndrome.
d) Turner's syndrome.

(viii) SLE is an example of:
a) Type I hypersensitivity.
b) Type II hypersensitivity.
c) Type III hypersensitivity.
d) Type IV hypersensitivity.

(ix) Which of the following causes a transudative type of pleural effusion?
a) Tuberculosis.
b) Empyema.
c) Bronchogenic carcinoma.
d) Left ventricular failure.

(x) Which of the following CD markers is NOT primarily T-cell associated?
a) CD2.
b) CD19.
c) CD3.
d) CD7.