Date: 06-07-2022

Second Year MBBS Examination

II MBBS Pathology Paper 1 (New)

Time: 3 hours

Max Marks: 100

Instructions:

1. Answer to the points.
2. Figure to the right indicates marks.
3. Use separate answer books for each section.
4. Draw diagrams wherever necessary.
5. Write legibly.

Section 1

1. Structured long questions (any one out of two) (10)
   a. Define reversible cell injury. Describe role of oxygen derived free radicals in cell injury, Describe ischemia-reperfusion injury.1+5+4
   b. Define acute inflammation, Describe leukocytes recruitments at the site of inflammation. Describe leukocytes mediated tissue injury.1+6+3
2. A. Applied short notes (any two outof three)

2x6=12 (12)

a. A 68 year old male with chronic cardiac disease and chronic liver disease presented to OPD with presence of edema in dependent portion of the body Explain the pathophysiology of edema in this patient Describe various types of edema.

b. A 48 year female presented to OPD with large deep ulcer over dorsal aspect of foot. Describe the mechanism by which wound healing occur in this patient. Enumerate the complications arise in tissue repair.

c. A 17 year female presented to surgery OPD with profuse watery diarrhoea, abdominal pain and occasional blood in stool. On colonoscopy there are >100 adenomatous polyps are present in large colon.Patient is suffering from which inherited condition? Which tumor suppressor gene gets mutated in this case? Describe WNT signalling pathway.

3. B. Write short notes on. (any three out of four) 3x6=18 (18)

a. Autoimmune diseases

b. Radiation injuries

c. Fetal hydrops

d. Chemical carcinogenesis

4. Answer in two to three sentences only

5x2=10(any five out of six) (10)

2. What is genomic imprinting?
3. Difference between hyperaemia and congestion.
4. Give four examples of chronic granulomatous inflammation.
5. Difference between transudate and exudate.
6. What is Cellular Senescence?

Section 2

1. Structured long questions (any one out of two) (10)
   a. Classify anaemia according to their morphology. Discuss iron metabolism. Describe etiology, clinical features and laboratory diagnosis of iron deficiency anaemia.1+2+2+2+3
   b. Classity lymphoid neoplasm according to WHO,Describe pathogenesis, prognostic factors and laboratory diagnosis of acute lymphoblastic leukaemia.3+2+2+3
2. A. Applied short notes (any two out of three) (12)
   a. A 33 year old male patient presented to emergency department by ambulance who isthe victim of major road traffic accsident. During assessment there is open tibial fracture for which he is bleeding patient is taken to operation theatre for a operation of fracture for which consent is taken. Patient gave past history of tonsillectomy for which he need blood transfusion. Patient has given one unit of blood transfusion. Ten minutes later patient becomes increasingly nauseous, sweaty shortness of breath and feels dizzy. On examination his Spo2:94%, Pulse rate: 110/min, BP: 94/64mmhg and Respiratory

rate: 28/min.Blood investigation shows Hb:8.8 gm/dl, WBC:20000/cumm, direct antiglobulin test is positive and Urine shows haemoglobinuria. Why this patient gets deteriorated after blood transfusion? Why direct antiglobulin test is positive? What is the difference between direct antiglobulin and indirect antiglobulin test?

b. A 10 year female abruptly develops petechia all over body,easy bruising and bleeding gums. Patient has history of viral fever few weeks back. Complete blood count is carried out which shows Hb:2gm/dl, WBC:8000/cumm, Platelet count: 90000/cumm. what is your probable diagnosis. Describe the pathogenesis of the condition. What are the common causes of decreased platelet counts?

c. Describe pathogenesis and laboratory diagnosis of Multiple Myeloma.

3. B. Write short notes on. (any three out of four) (18)
   a. Sickle cell disease
   b. Immune mediadiated hemolytic anaemia
   c. Agranulocytosis
   d. Single donor platelets
4. Answer in two to three sentences only (five out of six) (10)

a. Mention four transfusion transmitted infections.
b. Prognostic factors of chronic lymphocytic leukaemia.
c. What is leukocytes reduction in component separation and what are the clinical benefits of leukocytes reduction component therapy?
d. Name two myeloproliferative disorders associated with JAK2 point mutation
e. What is HbH disease?
f. What is Glanzmann thrombasthenia?

***