Date: 18-11-2024

1124 E346

First Year MBBS Examination

I MBBS Physiology Paper 1

Time: 3 hours

Max Marks: 100

Instructions: 1. Answer to the points. 2. Use separate answer books for each section. 3. Draw diagrams wherever necessary.

Section 1

1.Write the following structured long question. (Any I out of 2) 1x10=10 Marks (10)

a. What is cardiac output? Describe the methods of measurement of cardiac output and the factors affecting cardiac output. (2+4+4=10)
b. Define shock? List the types of shock. Explain the compensatory mechanism of shock. (14+3+6=10)

2.Case based scenario, (Any 2 out of 3) 2x6=12 Marks (12)

a. A 10 year old developed purple, petechial hemorrhagic spots. His platelet count is 90,000/cu.mm 1. What is the probable diagnosis? (1) 2. How can you confirm it by laboratory test? (2) 3. Describe the steps of formation of platelet plug. (3)
b. A 50 year old patient with sudden attack of unconsciousness. On examination he had pulse rate of 35/min. His ECG revealed P wave and ORS complex occurring independently of each other. 1. What is likely diagnosis?. (2) 2. Describe the various conduction disorders. (4)
c. A 40 year old male gives H/O appreciable amount of glucose in urine. However, his fasting and post prandial (PP) blood sugar were normal. 1. What is likely diagnosis? Q) 2. What is renal threshold? (1) 3. What is splay and what are its causes? (4)

3.Write short notes on: (Any 3 out of 4) 3x6=18 Marks (18)

a. Acquired immunity

b. Gibbs-Donnan equilibrium
c. Apoptosis vp
d. Pernicious anaemia [P.T.O.

4. Answer in only 2-3 sentences. (Any 5 out of 6) (10)

a. Write the following structured long question. (Any 1 out of 2)
b. Law of Laplace
c. Cardiac index
d. Why haemophilia deesnâ€™t affect females?
e. Why elevated K* concentration cause severe muscle contraction?
f. Why hypoproteinemia is associated with oedema?

Section 2

5.Why exercise lowers the blood sugar level? (10)

a. Define hypoxia. List types uf hypoxia and describe high altitude hypoxia.
b. What is G-protein? What is the primary role of G-protein in the cell? Describe the mechanism of action of G-protein.

6.Write short notes on: (Any 2 out of3) (12)

a. Homeostasis
b. Feedback loop
c. Health risk of sedentary lifestyle

7.Write short notes on: (Any 3 out of 4) (18)

a. Renal clearance
b. Micturition reflex
c. Role of physician as communicator
d. How empathy can be shown to the patient?

8. Answer in only 2-3 sentences. (Any 5 out of 6) (10)

a. Dyspneic index
b. Hyperbaric oxygen therapy
c. Water intoxication
d. Filtration fraction
e. Laron dwarfism
f. BMI (body mass index)