SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION AND RESEARCH

M B B S Phase I Examinations, November 2023

Time: 180 Minutes **Max Marks: 80 Marks**

Physiology Paper I - 2021
QP CODE: C1021
Your answer should be specific to the question asked
Draw neat labelled diagrams wherever necessary

Long Essay 10 × 2 = 20 Marks

1. Mr Rohan had a routine health checkup done and his blood pressure shows 124/86 mmHg a) Define Blood pressure and Mention normal systolic & diastolic blood pressure? (3) b) Describe the short-term regulation of blood pressure (7)

2. Name the muscles involved in respiration. With neat labeled diagram explain the mechanism of respiration.

Short Essay 5 × 12 = 60 Marks

3. Folic acid defeciency causes megaloblastic anaemia. Justify.

4. Diagramatically represent intrinsic pathway of coagulation

5. Define osmosis, osmotic pressure, osmolality, osmolarity of plasma

6. Describe the development of acquired immunity following invasion of an antigen

7. Cardiac muscle cannot be tetanized. Give reason.

8. Define microcirculation and describe its peculiarities.

9. Describe Pavlov's experiment in regulation of gastric juice secretion.

10. Describe the clinical features that arise due to impairement of absorptive function of small intestine.

11. Describe the oxygen- hemoglobin dissociation curve and mention the factors that shift the curve to the left.

12. Exercise causes three fold rise in oxygen. Justify

13. List three hormones acting on the kidney & describe the functions of each.

14. An 10-year-old girl is brought to OPD with puffiness of the face and edema of the legs. on urine examination, large amounts of protein is being excreted. Describe the basis for swelling & protein excretion in the given subject. (2.5+2.5)

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Time: 180 Minutes **Max Marks: 80 Marks**

Physiology Paper II
QP CODE: C1022

Your answer should be specific to the question asked
Draw neat labelled diagrams wherever necessary

Long Essay 10 × 2 = 20 Marks

1. A 34-year-old man visited his physician with complaints of weight loss in spite of increased food intake, discomfort in warm environment and diarrhea. His electrocardiogram (ECG) revealed tachycardia and arrhythmia. He was found to have goiter. 1.Name the endocrine disorder in the above case? (1) 2. Describe the synthesis of the hormones which is responsible for this condition (5) 3. Give the physiological basis for any two symptoms in the above patient. (4)

2. A 52-year-old man sees his physician to renew his prescription. As he sits in the waiting room, he is observed to have tremors in his hands and fingers. He has no expressions on his face. When he is invited to enter the physician's office, he walks slowly into the office and his arms do not swing appreciably. He does not have paralysis but his movements are all slow. a) Name the clinical disorder in this patient (1). b) Which part of the nervous system is damaged AND neurotransmitter involved? (2) c) Describe the specific pathway that is involved slowness of movement (7)

Short Essay 5 × 12 = 60 Marks

3. Describe the action of catecholamines on metabolism and cardiovascular system
4. Describe the role of vitamin D on regulation of calcium
5. Define relative Refractory period and absolute refractory period and mention their importance.
6. Define brain death. List the Salient features of brain death
7. Describe the mechanisms of heat production in the body
8. Explain the types of synaptic inhibitions
9. Distinguish between classical and ischemic decerebrate rigidity.
10. Illustrate the cause for bitemporal hemianopia with the resultant visual field defect.
11. Explain Rutherfords theory and Place theory of hearing
12. Describe the secondary sexual characters in a female.
13. Mention the site explain the functions of HCG
14. Distinguish between the end plate potential and an action potential