

P P SAVANI UNIVERSITY

First Semester of B. P.T. Examination

July 2021

SPPT1020 Human Physiology I

Time: 10 a.m. To 1:00 p.m.

08.07.2021, Thursday

Maximum Marks: 70

Instructions:

1. The question paper comprises of two sections.
2. Section I and II must be attempted in separate answer sheets.
3. Make suitable assumptions and draw neat figures wherever required.

SECTION - I

- Q - 1 Essay Question(Any One) [10]**
- (i) Define and Describe in detail cardiac cycle with appropriate diagram and graphs & describe pressure changes in ventricles
 - (ii) Define Action potential. Draw graph. Describe several stages of it. Write about myelination, its advantage and mechanism of it.
- Q - 2 Short Note(Any Two) [10]**
- (i) Describe in details about lung Mechanics.
 - (ii) Fluid Compartments and distribution
 - (iii) JGA
- Q - 3 Very Short Notes(Any Five) [15]**
- (i) Enlist Properties of Skeletal muscle
 - (ii) Define Resting Membrane Potential, Mention the Ion Responsible for it, Value of RMP in Skeletal Muscle
 - (iii) Define: A) Chronaxie and Rheobase with Graph
B) Motor Unit
 - (iv) Myelination. Definition and Advantages with diagram.
 - (v) Functions of 1) ADH
2) Aldosterone.
 - (vi) Examples of Positive Feedback Mechanisms
 - (vii) Define - A) Homeostasis
B) GFR

SECTION - II

- Q - 1 Essay Question(Any One) [10]**
- (i) What is erythropoiesis? Write down its different stages.
 - (ii) Define cardiac output & describe factors affecting it.
- Q - 2 Short Note(Any Two) [10]**
- (i) Describe in detail about Oxygen Hemoglobin Curve and factors causing shifting to Right and Left.
 - (ii) Osmoregulations by ADH.
 - (iii) Blood Clotting Pathway in details.
- Q - 3 Very Short Notes(Any Five) [15]**
- (i) Pacemaker of 1) Heart
2) Respiration
 - (ii) Define: A. End Systolic Volume B. Ejection fraction. C. Stroke Volume
 - (iii) Surfactant: Function, mechanism, and Name.
 - (iv) Functions of plasma Proteins
 - (v) Functions of Kidney
 - (vi) What is Rouleaux Formation.
 - (vii) Value: A) Normal RBC Count
B) Normal Hb
C) Normal WBC Count
