

Sem 1 BLP
Bt 2020

P P SAVANI UNIVERSITY

First Semester of B. P.T. Examination
December 2021

SPPT1020 Human Physiology I
Time: 9:30 a.m. To 12:30 p.m.

14.12.2021, Tuesday

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.
4. Use of scientific calculator is allowed.

SECTION - I

- Q - 1 Essay Question(Any One) [10]**
- (i) Define and Describe Arterial Blood Pressure with definition, normal values, factors. Describe Long term regulation of Blood pressure in detail.
- (ii) What is action potential? Explain with graph. Several stages of it. Describe myelination, its advantage and mechanism of it.
- Q - 2 Short Note (Any Two) [10]**
- (i) Define plateau. Draw the diagram. And write significance of it.
- (ii) Fluid Compartments and distribution
- (iii) Juxta Glomerular Apparatus
- Q - 3 Very Short Notes(Any Five) [15]**
- (i) Bohr's effect and Haldane's effect
- (ii) Define - A. Homeostasis.
B. Cardiac cycle.
- (iii) Enlist Properties of SKELETAL muscle
- (iv) Define Resting Membrane Potential, Mention the Ion Responsible for it, Value of RMP in Skeletal Muscle.
- (v) Define: A. Chronaxie and Rheobase with Graph.
B. Motor Unit.
- (vi) Myelination. Definition and Advantages with diagram.
- (vii) Sarcomere.- Diagram and Label and define Different areas of Sarcomere.

SECTION - II

- Q - 1 Essay Question(Any One) [10]**
- (i) A. Pulmonary Function test.
B. Factors affecting heart rate.
 - (ii) Define erythropoiesis. Write down its different stages.

- Q - 2 Short Note(Any Two) [10]**
- (i) Glomerular Filtration Rate - Define, factors affecting
 - (ii) Blood Clotting Pathway in details.
 - (iii) Describe in detail about Oxygen Hemoglobin Curve and factors causing shifting to Right and Left

- Q - 3 Very Short Notes(Any Five) [15]**
- (i) Walk Along theory
 - (ii) Surfactant: Function, mechanism, and Name.
 - (iii) Dead Space - Definition and normal value
 - (iv) Pacemaker of 1. Heart 2. Respiration
 - (v) Define:- A. End Systolic Volume
B. Ejection fraction.
C. Stroke Volume
 - (vi) Weible's lung model - with diagram
 - (vii) Lambert Eaton syndrome
