

27 OCT 2018

10194
FIRST BHMS EXAMINATION
OCTOBER-2018
Physiology & Biochemistry
Paper I

Duration: 3 Hrs.

100 Marks

Instruction:

1. Attempt all questions from each section
2. Figures to right indicate full marks
3. Draw figure wherever necessary
4. Write separate sections on separate answer sheets

Section - I

- Q-1 Define hemoglobin. Which are its types, derivatives, functions, normal values and factors helping in synthesis of hemoglobin. **15**
- OR**
- Q-1 Define blood pressure. Types of blood pressure. What is role of kidney to maintain blood pressure? **15**
- Q-2 Define cardiac cycle. Discuss the volume changes occurring during the cardiac cycle. **15**
- OR**
- Q-2 1. Define plasma. Write composition of plasma and describe in detail function of plasma proteins. **08**
2. Define cardiac impulse. Describe the conducting system of the heart with draw labelled diagram **07**
- Q-3 Write Short Note (Any three) **15**
- (a) Reticuloendothelial system (b) Passive transportation
- (c) Humeral immunity (d) Heart sounds
- (e) DNA
- Q-4 Short questions **05**
1. Define stroke volume index.
 2. Enumerate only factors which prevents intravascular clotting of blood.
 3. Which are the types of endoplasmic reticulum and give its one function.
 4. What is buffer? Name the different buffer system
 5. Which WBCs are called granular leucocyte? Why?

Section - II

- Q-1 Draw labelled diagram of respiratory membrane. Explain factors affecting diffusion across its. **15**
- OR**
- Q-1 What is GFR? Its normal value? Which are the different factors affecting on it? Describe it. **15**
- Q-2 Describe mechanism of concentration and dilution of urine **15**
- OR**
- Q-2 1 What is spirometry? Describe lung volume and lung capacities in detail **08**
- 2 Define nephron. Types of it and gives their functions. **07**
- Q-3 Write Short Note (Any three) **15**
- (a) O₂-Hb dissociation curve (b) Peculiarities of renal circulation
- (c) Role of hypothalamus in regulation of body temperature (d) Functions of skin
- (e) Fatigue
- Q-4 Short questions **05**
1. Define dead space and which are its type
 2. Define nephron
 3. Define sarcomere
 4. Name glands present in the skin
 5. What is Helden's effect?