

1807000101030001  
First Year B.H.M.S  
Examination June - 2023  
Physiology & Biochemistry Paper-I

Seat No:

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[Max. Marks:100]

Student's Signature

[Time: 3:00 Hours]  
Instruction:

- All Questions Are Compulsory.
- Write in Neat handwriting.
- Marks to the right indicate full marks.

SECTION-I

- Q.1 Define Blood. Describe in detail composition & functions of Blood. 15  
OR  
Define Plasma, Serum, Clot, Bleeding Time, Coagulation time, Prothrombin Time. Describe Mechanism of Blood Coagulation. 15
- Q.2 Describe Cardiac Cycle. What is the normal Cardiac cycle Time? Describe various events of Cardiac Cycle. 15  
OR  
(a) Describe Junctional Tissues of Heart. 08  
(b) Describe circulation of Blood. 07
- Q.3 Write short notes on: (Any Three) 15  
a. Mitochondria.  
b. Functions of Bone Marrow.  
c. Describe structure and type of Capillaries. Write differences between capillary and Sinusoids.  
d. Lysosomes.  
e. Functions of Plasma Protein.
- Q.4 Answer as directed: 05  
a. \_\_\_\_\_ are called as Proteins factories.  
b. \_\_\_\_\_ is required for formation of Prothrombin.  
(i) Vitamin A, (ii) Vitamin D, (iii) Vitamin E, (iv) Vitamin K.  
c. Blood group \_\_\_\_\_ is Universal Recipient.  
(i) "A" blood group, (ii) "Ab" blood group, (iii) None, (iv) "B" blood group.  
d. Define Cell and Tissue.

e. What is Marey's Law?

**SECTION – II**

Q.1 Define Respiration, Anoxia, Hypoxia, Asphyxia, Cyanosis, Describe in detail various types of Anoxia / hypoxia. 15

**OR**

Describe Chemical & Nervous Regulation of Respiration. 15

Q.2 Define Nephron. What are the different types of Nephron? What are its part. Write a note on function of Nephron. 15

**OR**

(a) Write down various Normal Constituents of Urine with their source. 08

(b) Role of ADH on Nephron. 07

Q.3 Write short notes on: (Any Three) 15

a. Functions of Kidney.

b. Structure of Skin.

c. Difference between Skeletal, Cardiac and Smooth muscle.

d. Abnormal Constituents of Urine.

e. Artificial Respiration.

Q.4 Answer as directed: 05

a. Normal Value of Glomerular Filtration Rate.

b. Define Surfactant.

c. Name different types of glands in skin.

d. Define Staircase phenomenon.

e. Ketone Bodies are normal Constituents of Urine. **True or False.**