Sub Code: HomUG-PB

Sarada Krishna
Homoeopathic Medical College
Kulasekharam, Kanniyakumari District, Tamilnadu – 629 161

(*Accredited by NAAC with B+ Grade & NABH*)

FIRST BHMS TERM TEST - AUGUST 2023

Subject: Physiology and Biochemistry

I. MCQ: (10 x 1 = 10)

1. The antibodies involved in anaphylactic hypersensitivity is
   a. IgA b. IgE c. IgD d. IgG
2. In sickle cell anemia the genetic defect is that at position 6 of beta polypeptide chain of Hb-A (dk)
   a. Glutamic acid is replaced by leucine
   b. Glutamic acid is replaced by isoleucine
   c. Glutamic acid is replaced by valine
   d. Glutamic acid is replaced by arginine
3. The albumin –globulin ratio ordinarily is
   a. 2.5:0.5
   b. 1.5:1
   c. 4:3
   d. 5:2.5
4. Lack of vitamin K causes deficiency of all except
   a. Prothrombin
   b. Fibrinogen
   c. Factor VII
   d. Factor X
5. Among the body tissues largest amount of heat is produced by
   a. Subcutaneous tissue
   b. Adipose tissue
   c. Skeletal muscle
   d. Blood
6. Tetanus is not possible in cardiac muscle due to
   a. Long refractory period
   b. Prolonged relaxation phase
   c. Short refractory period
   d. All of the above

7. Presence of Ca^{2+} on nerve membrane may play a significant role in
    a. Operation of sodium-potassium pump
    b. Regulation of K^{+} outflow
    c. Keeping Na^{+} gates closed
    d. Keeping K^{+} anion from going out
8. Which of the following is transported by simple diffusion through the cell membrane?
    a. Water
    b. Alcohol
    c. Sugars
    d. Aminoacids
9. The main cause of death in patients of myasthenia gravis is
    a. Facial paralysis
    b. Problem in swallowing
    c. Paralysis of respiratory muscles
    d. Spasm of respiratory muscles
10. Conjugation of bilurubin occurs in
    a. Hepatocytes
    b. Granulocytes
    c. Lymphocytes
    d. Erythrocytes

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Subject: Physiology and Biochemistry

Time: 3 hours. **Maximum: 100 marks**

ll. Write short note on: **(10 x 5 = 50)**

1. Describe the functions of blood.
2. Explain the forms and functions of plasma proteins.
3. Illustrate the structure of neuromuscular junction and its transmission.
4. Explain the contraction of smooth muscle.
5. Differentiate Active transport and passive transport with examples.
6. Discuss layers of skin and its functions.
7. Explain action potential.
8. Explain homeostasis and its control.
9. Relate the structure of different glands of skin and its functions.
10. Describe the structure and functions of cell.

lll . Write Long answers on: **(10 x 4 = 40)**

1. Discuss the stages and regulation of erythropoesis.
2. Classify Anemia according to the morphology and etiology.
3. Explain the stages of clotting mechanism.
4. Discuss the development of immune response.