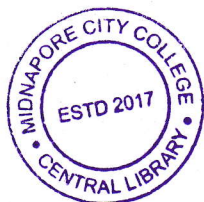


**The West Bengal University of Health Sciences**  
**B.Sc. in Medical Microbiology 1st Semester June-July, 2022**  
**Examination**



Time : 2 hrs.

Subject : Basics of Physiology

Full Marks : 50

Attempt *all* questions

1. Tick the correct answer : 10 x 1
- a) Which of the following hormone helps in the secretion of HCL from stomach?  
 i) Gastrin.    ii) Secretin.    iii) Pepsin.    iv) Renin.
  - b) Which of the following human cells produce insulin?  
 i) Beta cells.    ii) F cells.    iii) Alpha cells.    iv) Delta cells.
  - c) Which component of protein contributes to maximum percentage to total plasmaprotein?  
 i) Albumin.    ii) Globulin.    iii) Fibrinogen.    iv) Prothrombin.
  - d) The hormone which converts angiotensinogen to angiotensin I is :  
 i) Angiotensinase.    ii) Renin.    iii) Rennin.    iv) None of these.
  - e) The gaseous exchange in alveoli is a type of :  
 i) Simple diffusion.    ii) Osmosis.    iii) Active transport.    iv) Passive transport.
  - f) The reason for the dicrotic notch on the aortic pressure curve is :  
 i) Contraction of aorta.    ii) Closure of the aortic valve.  
 iii) Rapid filling of the left ventricle.    iv) Closure of the pulmonary valve.
  - g) Which of These is a Male Sex steroid?  
 i) Aldosterone.    ii) Testosterone.    iii) Pheromones.    iv) Insulin.
  - h) Respiratory centre is located in?  
 i) Cerebellum.    ii) Medulla oblongata.    iii) Cerebrum.    iv) Basal ganglia.
  - i) Which of the following controls skeletal muscles?  
 i) Autonomic nerves.    ii) Somatic nerves.  
 iii) Sympathetic nerves.    iv) Vagal nerve.
  - j) Which of the following is the inner most layer of human eye?  
 i) Retina.    ii) Choroid.    iii) Sclera.    iv) Cornea.
2. Answer *any four* of the following questions : 4 x 2
- a) What is end diastolic volume?
  - b) Define chloride shift.
  - c) Functions of albumin.
  - d) What is PURPURA?
  - e) What is micturition reflex?
  - f) Name the muscle proteins.
3. Answer *any four* of the following questions. 4 x 4
- a) What do you mean by counter current system?
  - b) Describe & draw the visual pathway from retina to cortex.
  - c) Add a short note on NMJ.
  - d) Functions of thyroid hormones.
  - e) Stages of spermatogenesis.
  - f) Pressure and volume changes in cardiac cycle.
4. Answer *any two* of the following questions : 2 x 8
- a) Explain the phases and regulations of menstrual cycle in ovary and uterus.
  - b) Mention the events in cardiac cycle with special reference to ECG and heart sounds.
  - c) Mechanism of transduction and neural pathways for auditory sensation.