

**ST. MARY'S HIGH SCHOOL, NEW COOCH BEHAR**

**3<sup>rd</sup> Unit Test (2021-2022)**

**Class- X**

**BIOLOGY (SCIENCE PAPER 3)**

**Time: 1hr**

**F M: 30**

**SECTION A**

**(Attempt all questions)**

**Question 1**

Name the following by choosing the correct answers to the questions from the given options.

[10]

**(Do not copy the questions, Write the correct answer only)**

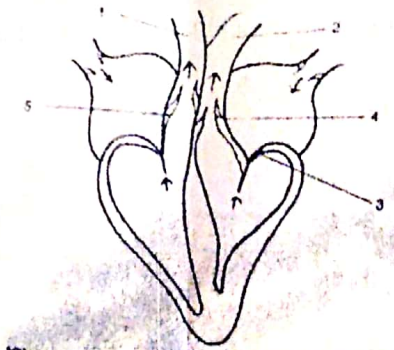
- (i) Blood cells are manufactured in :  
 (a) Bone marrow      (b) Spleen      (c) Red Blood cells      (d) Platelets
- (ii) The normal diastolic blood pressure in a normal healthy adult human is -----  
 (a) 80 mmHg      (b) 60 mmHg      (c) 90 mmHg      (d) 110 mmHg
- (iii) The adult human heart beats about ----- times in a minute.  
 (a) 42      (b) 52      (c) 62      (d) 72
- (iv) ----- is a small branch of an artery that leads into a capillary.  
 (a) Capillary      (b) Areolas      (c) Arteriole      (d) None of these
- (v) Cell body of neuron is also known as  
 (a) Axon      (b) Cyton      (c) Bipolar neuron      (d) Synapse
- (vi) The brain is responsible for  
 (a) Thinking      (b) Regulating the heart beat      (c) Balancing the body      (d) all the above
- (vii) The human eye forms the image of an object at its:  
 (a) Cornea      (b) Pupil      (c) Iris      (d) Retina
- (viii) In a neuron, conversion of electrical signal to a chemical signal occurs at/in  
 (a) Cell body      (b) Axonal end      (c) Dendritic end      (d) Axon
- (ix) Posture and balance of the body is controlled by  
 (a) Cerebrum      (b) Cerebellum      (c) Medulla      (d) Pons
- (x) Nervous system consists of :  
 (a) Brain      (b) Spinal cord      (c) Nerves      (d) All of these

**SECTION B**

**(Attempt any two questions from this section)**

**Question 2**

The following diagram represents the human heart in one phase of its functions. Study the diagram carefully and answer the questions that follows:

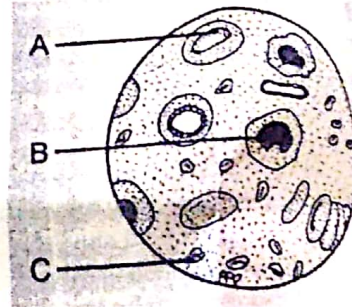


- (a) Name the following: [2]
  - (1) Identify the given phase.
  - (2) Which part of the heart is contracting in this phase? Give reason to support your answer.
- (b) Name the parts labelled 1 to 4. [2]
- (c) Answer the following: [3]
  - (1) What type of blood flows through '2'?
  - (2) State the function of the part numbered '5'.
  - (3) Name the membrane that covers the heart.
- (d) Draw neat labelled diagrams of a cross section of an artery and a vein (label any three parts). [3]



### Question 3

The diagram given below represents a blood smear. Answer the questions that follow.



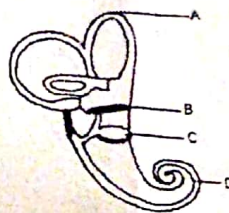
- (a) Differentiate between A and B. [2]
- (b) State two important characteristics of B that enable it to carry out its function. [2]
- (c) Label A, B and C. [3]
- (d) State an important function of each. [3]

### Question 4

- (a) What is meant by "Power of accommodation" of the eye? Name the muscles of the eye responsible for the same. [2]
- (b) Define Reflex action and Reflex arc. [2]
- (c) How is Presbyopia different from Myopia? Give two possible reasons for myopia. [3]
- (d) Explain Dark adaptation and write the major changes occurring in the eye during dark Adaptation [3]

### Question 5

- (a) Give reason for the following: [2]
  - (1) Vitamin K is essential for the process of blood clotting.
  - (2) The left ventricle of the heart has a thicker wall than the right ventricle.
- (b) Differentiate between the following pair according to what is given in the bracket: [2]
  - (1) Beginning of the ventricular systole and the end of ventricular diastole. (type of heart sound)
  - (2) Artery and Vein. (structural difference between blood vessels)
- (c) The diagram given below represent the structure found in inner ear. Study the same and answer the questions that follow : [3]



- (1) Name the parts labelled A, B, C and D.
- (2) Name the Audio receptor cells which pick up vibrations.
- (3) Name the fluid present in the inner ear.
- (d) Rewrite the terms in a logical sequence: [3]
  - (1) Artery, Capillaries, Venule, Vein, Arteriole.
  - (2) Posterior vena cava, Renal artery, Aorta, Renal vein, Kidney.
  - (3) Spinal cord, Motor neuron, Receptor, Effector, Sensory neuron.

----- X -----