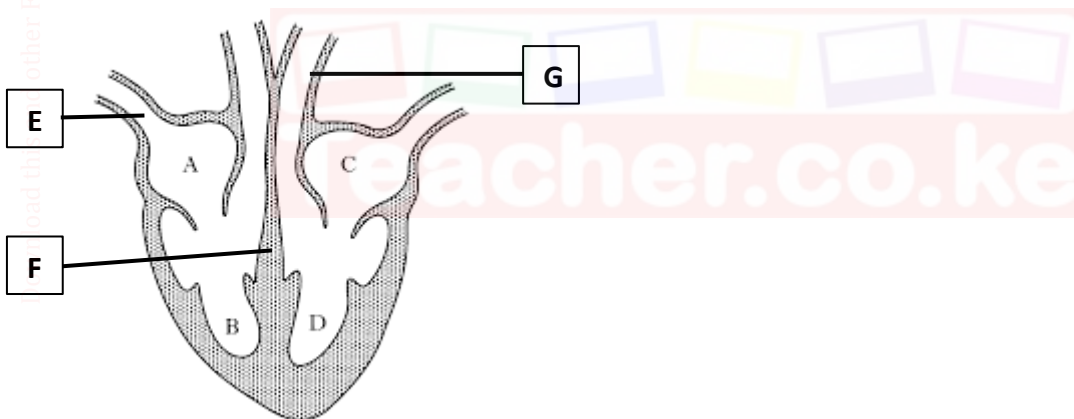


**FORM TWO BIOLOGY
HOLIDAY ASSIGNMENT
APRIL, 2024**

1. Name the branch of Biology that deals with the study of the following: (3 marks)
 - a) Cells
 - b) Development of techniques for the application of biological processes
 - c) Structure of tissues
2. Explain how the following factors increase the rate of water loss from a plant leaf.
 - a) Broad leaf surface (1 mark)
 - b) Wind (2 marks)
3. Samson wrote the scientific name of Lion as PANTHERA LEO.
 - a) Give the name of this system of naming organisms (1 mark)
 - b) Write the scientific name of Lion in the correct way (1 mark)
4. The diagram shown below represents a mammalian heart.



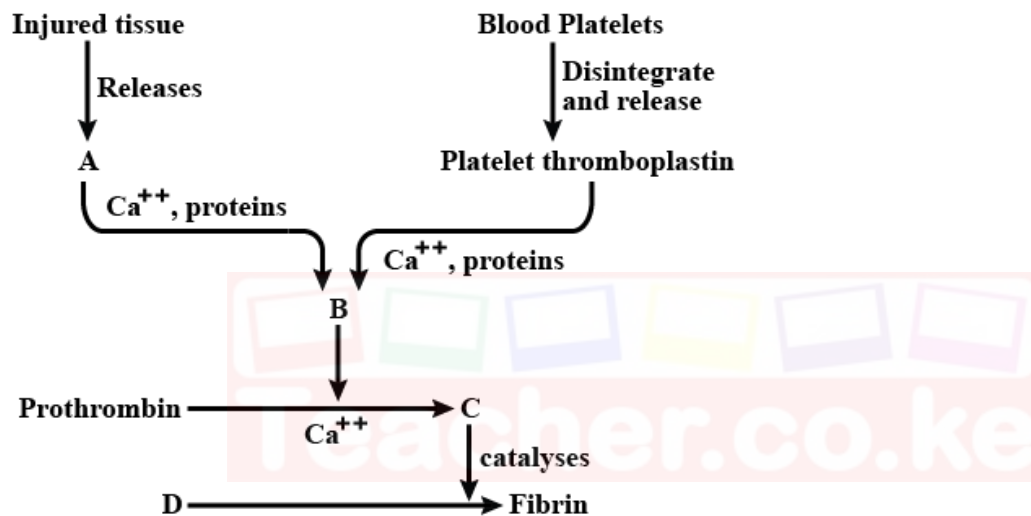
- a) State the difference in composition of blood found in blood vessels **E** and **G** in terms of the following: (2 marks)

Feature	Blood Vessel E	Blood Vessel G
Amount of Nitrogenous Wastes		
Oxygen Concentration		

- b) Name the valve that prevents backflow of blood: (2 marks)

- i) From **G** to **D**
- ii) From **D** to **C**
- c) What is the significance of the following? (2 marks)
 - i) **D** having a thicker wall than **B**
 - ii) Presence of part **F**
- d) Explain the advantage organisms with the heart structure above have over the rest

5. The following is a schematic representation of the blood clotting process.



- a) Identify the following components of the blood clotting process. (2 marks)
 - i) **C**
 - ii) **D**
- b) i) Name the component of blood that stops the process illustrated above. (1 mark)
 - ii) Give **two** ways by which the compound mentioned in b(i) hinders the blood clotting process. (2 marks)
- c) Name the vitamin that is useful in the process above. (1 mark)
- d) Give **two** ways in which the process illustrated above is important to the mammalian body.