

ST ANDREW'S SECONDARY SCHOOL
Secondary 3 Biology (6093)

Chapter 8: Transport in Humans

Name: _____ () Class: _____ Date: _____ Marks: ____/25

- 1** Determine if the following statements are true or false. If false, correct the statement to make it true.

True/False

- | | |
|---|-------|
| a. All organisms have blood. | _____ |
| b. Blood is necessary for transport of gases, nutrients and waste products into and out of the body of all organisms . | _____ |
| c. Blood is made up of plasma, red blood cells, white blood cells and platelets. | _____ |
| d. White blood cells have a longer lifespan than red blood cells because of the presence of nucleus. | _____ |
| e. The red color observed in blood is derived from the red pigment hemoglobin in red blood cells. | _____ |
| f. There are two types of platelets – lymphocytes and phagocytes. | _____ |
| g. Blood functions solely as a transport mechanism for the body. | _____ |
| h. Blood groups vary among individuals because of varying antigens on the surface of white blood cells. | _____ |
| i. A person with blood group O can only accept blood from another person with blood group O. | _____ |
| j. Blood clotting is possible with the presence of activated thrombin and fibrinogen in blood. | _____ |

[10]

2 (adapted from 2013 P2A Q1)

Fig. 2.1 shows a vertical section of the human heart.

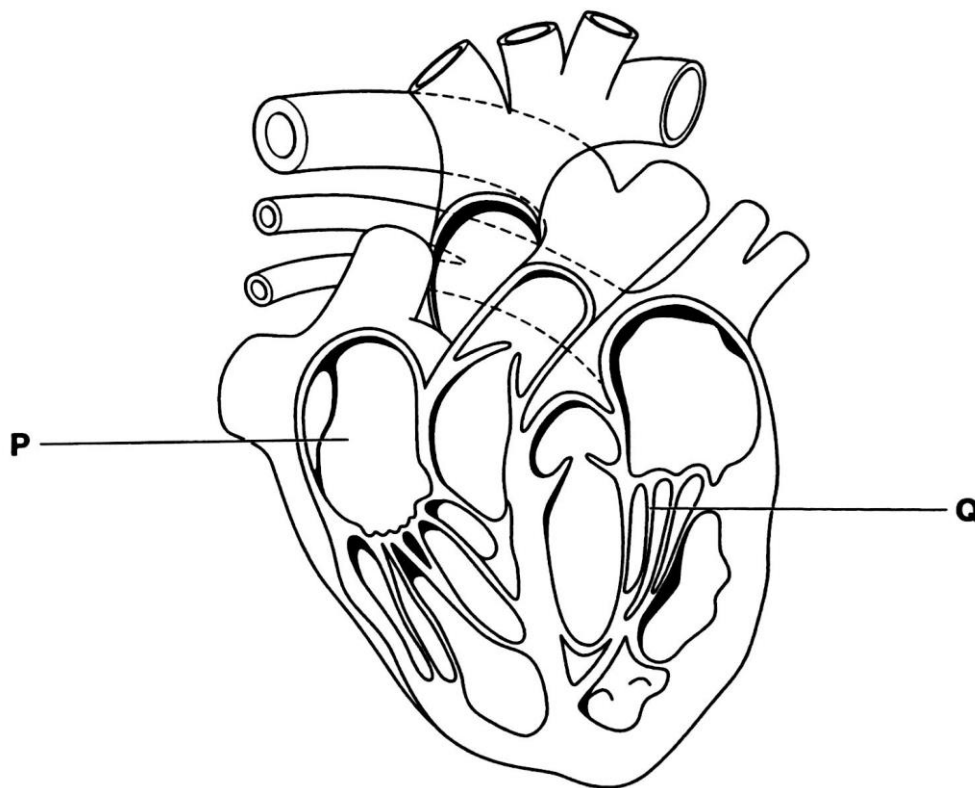


Fig. 2.1

(a) (i) Name the parts labelled **P** and **Q**.

P _____

Q _____ [2]

(ii) Use a label line and the letter **X** to label the aorta on Fig. 1.1. [1]

- (b) Describe how blood from the lungs is forced through the heart into the aorta.

[4]

- (c) Fig. 1.2 shows the changes in pressure in the left side of the heart during the cardiac cycle.

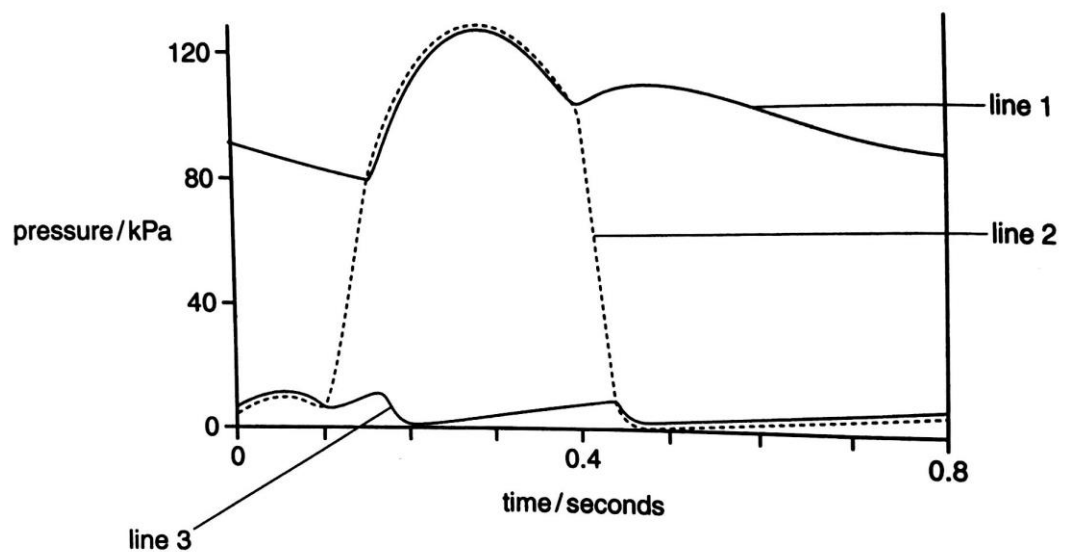


Fig. 1.2

- (i) Using the information in Fig. 1.2, state how long ventricular systole lasts.

_____ [1]

- (ii) State the number of the line which represents the pressure in the following parts of the left side of the heart.

Left atrium: Line _____
 Left ventricle: Line _____
 Aorta: Line _____

[3]

(iii) Describe, in detail, the events happening in the heart at 0.4 seconds.

[4]