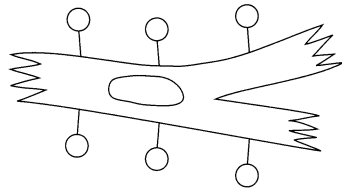


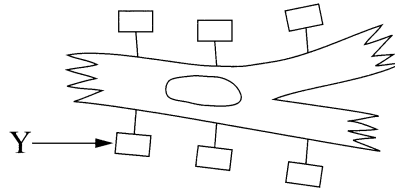
Question 28 (8 marks)

Organ transplants may trigger an immune response which can lead to organ rejection.

The diagram below represents a model of two heart cells, one from a transplant recipient and one from a donor.



Recipient heart cell



Donor heart cell

- (a) What does Y represent? 1

Protein/antigen

- (b) Assess the effectiveness of the model in explaining the cause of organ rejection in a transplant recipient. 3

I believe the model isn't very effective as nothing is explained. People don't know that their immune system has markers on cells to protect it from your immune system.

- (c) Name and outline the role of TWO types of T lymphocytes in organ rejection. 4

*T memory cells: These remember a pathogen/organ and so are ready to create many killer T cells to destroy it.
 Killer T cells: These destroy intruders in a body so they try to destroy a transplanted organ, thus the rejection.*