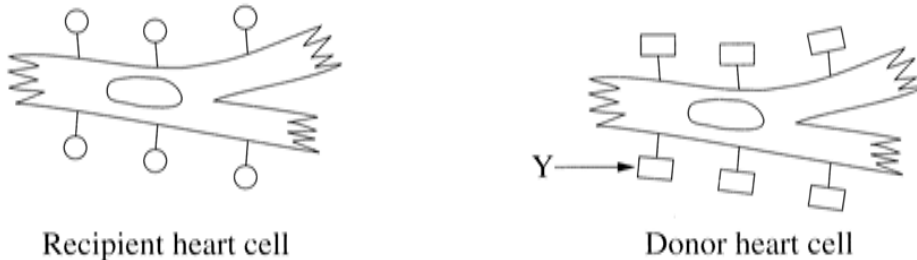


**Question 28** (8 marks)

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.



- (a) What does Y represent? 1

..... Antigen .....

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

..... The model shows why the ~~fore~~ new organ would be rejected by the host as the antigens do not match the original cells. ~~And thus is effective in explaining the cause of organ rejection.~~ And thus would be labelled as foreign and attacked, thus effectively explaining the cause of organ rejection.

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

..... T-killer cells : they attack the ~~organ~~ foreign organ as it recognises the organ as 'foreign'

..... T-helper cells : ~~antibodies~~ target the foreign organ by the antibodies and activates the killer T-cells