

Unit 4 Biology Q&A

Unit code: WBI14/01

Q.) Suggest what happens to the light energy falling on a leaf that is not converted into chemical energy.

(3)

- Reflected by the leaf
- Passes straight through the leaf
- Used in leaf in other ways

Q.) Suggest and explain the effect of a method to combat climate change. (2)

- Reforestation
 - The growing trees will absorb carbon dioxide reducing the greenhouse gas effect
- Legislation to reduce the use of fossil fuels
 - Less carbon dioxide will be emitted so reducing the enhanced greenhouse effect
- Increase use of biofuel to replace fossil fuels
 - Plants are grown and take carbon dioxide out of the atmosphere then they are processed into fuel and used instead of fossil fuels as a carbon neutral alternative
 - However, this means land will be used to grow fuel instead of food and is not sustainable
- Increase awareness of use of renewable energy sources
 - Can reduce carbon emissions by providing alternative energy

Q.) Describe how a B cell is activated (3)

- {antigen/bacteria/virus/pathogen} binds to B cell
- {antigen/bacteria/virus/pathogen} binds to MHC (antigen)
- T helper {lymphocytes/cells} bind (to B cell)
- Ref. cytokines (from T helper cells)

Q.) Describe the role of the Golgi body in the production of antibodies (3)

- It modifies the protein
- e.g) addition of carbohydrate group/ other e.g
- Antibody packed into vesicles
- Exocytosis

Q.) Explain how decomposition of a dead organism can lead to succession and how it increases the biodiversity of an area (6)

- Decomposition takes place in a sequence of stages
- During decomposition soil conditions improve

- More complex plants can grow starting with grass (So more grass will grow Followed by more trees)
- More animals will also be present because there is food provided
- So the biodiversity is greater because there is an increase in species

Q.) What is the role of cytokines

(*)

- Released by T helper for
- B cell activation
- OR T killer activation

The sample terminates here. This sample was extracted from a document of over 30 pages filled with similar content that span the required material for the unit 4 Biology exam.

For more information or for inquiries, please contact:

h.g.alyassiri@gmail.com