1. a). what do you understand by each of the following terms as used in cell physiology:
2. diffusion (2mks)
3. osmosis (2mks)
4. active transport (2mks)

b.) name the factors that influence the rate of both osmosis and diffusion (3mks)

2) a) A plant cell does not lose its shape even after it has lost water completely by osmosis. Give an explanation for this (2mks)

b) when would a red blood cell:

1. get haemolysed? (1mk)
2. Get crenated? (1mk)
3. distinguish between the following:
4. flaccidity and turgidity (2mks)
5. plasmolysis and diplasmolysis (2mks)
6. osmotic pressure and osmotic potential (2mks)
7. state the properties of a cell membrane (3mks)

4)

1. write a word equation for the processs of photosynthesis (2mks)
2. briefly describe how each of the following factors affect the rate of photosynthesis
3. carbon dioxide concentration (2mks)
4. temperature (2mks)
5. light intensity (2mks)
6. name the form in which carbohydrates are stored in
7. plants (1mk)
8. animals (1mk)

5)name the chemical reagents which are used in the laboratory to test the presence of each of the following food substances

1. starch (1mk)
2. reducing sugars (1mk)
3. non reducing sugars (1mk)
4. vitamin C(ascorbic acid) (1mk)
5. define the term respiration (1mk)

name two types of respiration (2mks)

when does respiration takes place in

1. a eucaryotic cell (1mk)
2. a prokaryotic (1mk)

state the factors which influence the rate of respiration (4mks)

6.) how do each of the following biological phenomena contribute to cooling of the body?

1. Sweating (3mks)
2. Vasodilation (3mk)
3. One of the functions of the mammalian skin is protection. Explain how the skin protects the bodya against
4. Bacteria (4mks)
5. Dehydration (2mks)
6. Ultra violet radiations(2mks)
7. Define the following terms used in the study of ecology
8. Habitat(1mk)
9. Ecosystem (1mk
10. Population(1mk
11. The figure below represents a pyramid of numbers of a certain ecosystem

Secondary consumers

Primary consumers

Producers

1. What name is given to this type of pyramid? (1mk
2. Give an example of an ecosystem represented by the above pyramid (1mk
3. What is eutrophication?(2mks)

State two possible causes of eutrophication (2mks)

What problem does eutrophication create in aquatic system (2mks)

1. In which environment would you find the following plants
2. Mesophytes (1mk)
3. Hydrophytes (1mk)
4. Xerophytes (1mk)
5. Halophytes (1mk)

State two ways in which the root system of xerophytes assist them to survive in dry areas (2mks)

State 3 precautionary measures that can be taken to control the outbreak of cholera (3mks)

Name the causative agent of malaria (1mk)

All the best!!!