

Weaknesses

There was confusion among candidates on the difference between diffusion and osmosis. Knowledge on role of active transport was lacking.

Expected Response

- a) Diffusion is the movement of molecules from a region of high concentration to a region of low concentration; until the molecules are uniformly distributed; in the medium.
- b) i) Diffusion gradient
The higher the diffusion gradient between two points the faster the rate of diffusion; Accept the converse
- ii) Surface area volume ratio
The higher the surface area volume ratio the faster the rate of diffusion; Accept the converse
- iii) Temperature
Increasing temperature increase the rate of diffusion;
- c) - Reabsorption of glucose and some salts by the kidney
- Absorption of digested food from the alimentary canal;
- Excretion of waste products from the body cells;
- Reabsorption of useful material in the blood stream;

Question 17

During germination and growth of a cereal, the dry weight of endosperm, the embryo and the total dry weight were determined at two day intervals. The results are shown in the table below.

Time after planting (days)	Dry weight of endosperm (mg)	Dry weight of embryo (mg)	Total dry weight (mg)
0	43	2	45
2	40	2	42
4	33	7	40
6	20	17	37
8	10	25	35
10	6	33	39

- (a) Using the same axes, draw graphs of dry weight of endosperm, embryo and the total dry weight against time. (7 marks)