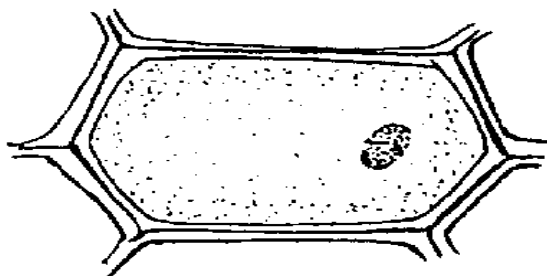


Question 6

- (a) The figure given below shows the epidermal cells of an onion bulb. This cell was then transferred to a drop of sugar solution.



- (i) Draw a well-labelled diagram of the epidermal cell as it would appear after immersion in a strong sugar solution.
- (ii) What scientific term is used for the changes as shown in (i)?
- (iii) What should be done to restore the cell back to its original condition?
- (iv) Give the scientific term for the recovery of the cell as a result of the step taken in (iii) above.
- (v) Define the term osmosis. [5]

- (b) Briefly explain the following terms.

- (i) Genes
- (ii) Cytokinesis in plant cells
- (iii) Guttation
- (iv) Diabetes insipidus
- (v) Disinfectants [5]

Question 7

- (a)

- (i) Draw a well-labeled diagram to show the anaphase stage of mitosis in a plant cell having four chromosomes.
- (ii) State any two harmful effects of acid rain.
- (iii) Expand the following biological abbreviations:
(1) NADP (2) ACT [5]

- (b)

- (i) List any two major activities of the Red Cross.
- (ii) Write any two major reasons for the population explosion in the world.
- (iii) Write the names of four nitrogenous bases in a DNA molecule. [5]