

STD 10                      BIOLOGY    TERMINAL    PAPER                      1 HOUR                      40 MARKS

Qs 1A Name the following (3)

- i) Structures through which guttation takes place
- ii) full form of DNA
- iii) point of attachment in chromosomes
- iv) names of nitrogenous bases
- v) smallest cell
- vi) highly condensed and coiled chromatin fibre

B) Define (5)

- i) imbibition
- ii) Root pressure
- iii) Gene
- iv) Monohybrid ratio
- v) Mutation

C) Give reason for the following statement (2)

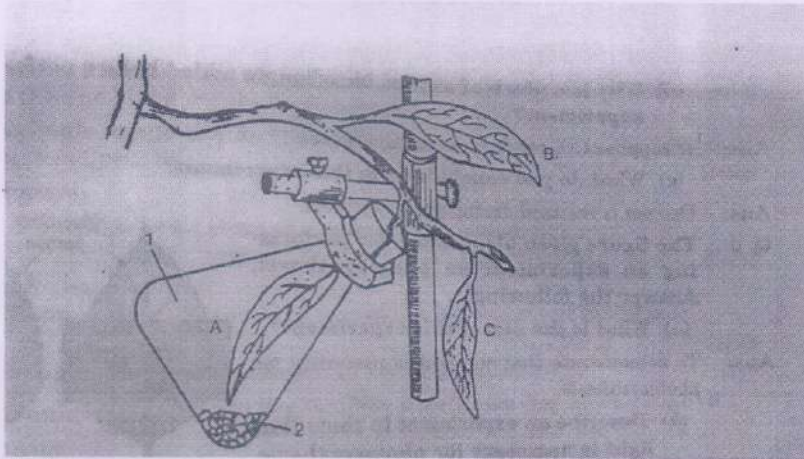
- i) Transpiration is an outcome of photosynthesis
- ii) The father is responsible for the gender of the child

Qs 2A Give the functions of the following (3)

- i) Mitochondria
- ii) stomata

iii) Chlorophyll

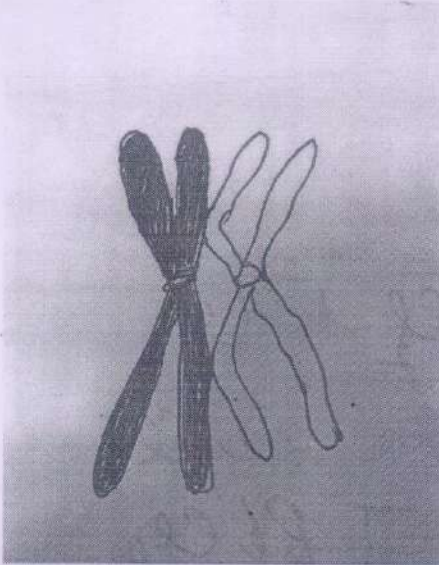
Qs2 B



- i) What is the aim of the experiment drawn above (5)
- ii) What is the special condition inside the flask
- iii) List 2 factors that increase the rate of photosynthesis
- iv) What are the results for leaf A and leaf B for starch test? Give reason for your answer

Qs 2 C .Draw a punnett square to find the F1 and F2genotypic and phenotypic ratio when seeds of a homozygous tall plant are crossed with seeds of a homozygous dwarf plant. Write its genotype and phenotype (2)

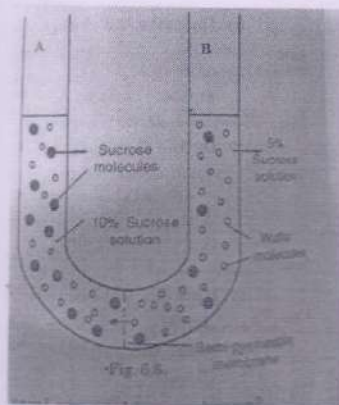
Qs 3A Drawn below is a diagram depicting a particular phase in a type of cell



- i) Identify the phase (5)
- ii) Redraw the next stage, what is the importance of this process
- iii) Name the type of cell division
- iv) List 2 differences between the above mentioned type of cell division and another type of cell division you have studied
- v) Define the term synapsis

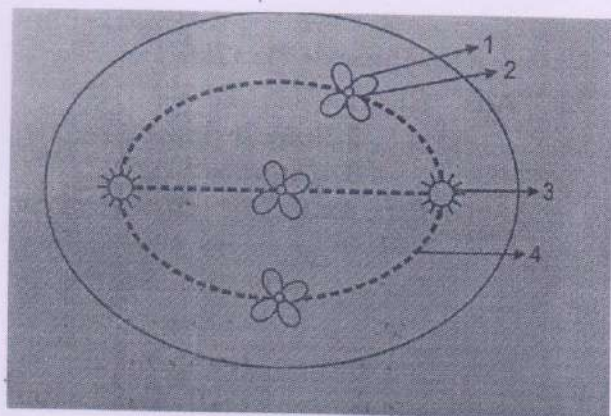
chiasmata

Qs 3B The diagram below depicts a particular process.(5)



- i) Define the process
- ii) Define semi permeable membrane
- iii) Which limb contains concentrated solution
- iv) Redraw the diagram after some time .Give a reason for your answer
- v) How is this process useful to plants?

Qs 4A Drawn below is a phase of a type of cell division (5)



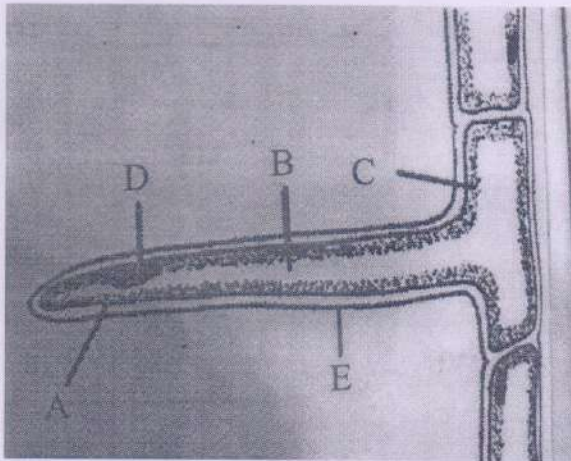
i) Identify parts 1,2,3,4

ii) Name the phase

iii) Redraw the next phase

iv) How is this type of cell division in animals and plants (2 points )

B) The figure below shows a cross section of a part of a root hair (5)



i) Identify parts A to D

ii) Is the root hair unicellular or multicellular

iii) Redraw a diagram to show what you would observe if the root hair is placed in salt solution

iv) Name the process responsible for entry of water molecules