

MARTHOMA RESIDENTIAL SCHOOL, THIRUVALLA
FIRST TERM ASSESSMENT 2020-2021
BIOLOGY

STD: X

Time: 30 Mts
Marks: 20

Question1

a Define the following. (3)

1. Mutation
2. Osmosis
3. Crossing over

b Differentiate the following on the basis of what is given in brackets (3)

1. Active transport and diffusion(Significance in plants)
2. Hypertonic solution and hypotonic solution (condition of plant cell when placed in them.)
3. Adenine- Thymine and Guanine-Cytosine (Number of hydrogen bonds)

c Write the function of the following. (2)

1. Centrosome
2. Histone

d Give the exact location of the following. (3)

1. Centromere
2. Chloroplast
3. Pulvinous

e Given below is two sets of five terms each. Rewrite them so as to be in logical sequence. (2)

1. Cortical cell, root hair, xylem, water, veins
2. Karyokinesis, S-phase, Cytokinesis, G₁ phase, G₂ phase.

f Give reasons for the following. (2)

1. Generally only the male child suffers from haemophilia and not the female.
2. Salt and sugar are used in preserving food.

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More questions below

g Study the following diagram and answer the questions that follow:

(5)



1. Name the stage depicted in the diagram .Give reason to support your answer.
2. Draw a neat and labelled diagram of the cell as it would appear in the next stage. Name the stage.
3. Identify whether it is plant or an animal cell. In what two ways is mitotic division in an animal cell different from the mitotic division in a plant cell?
4. How will you differentiate between mitosis and meiosis on the basis of the number of daughter cells?