

Eastern University, Sri Lanka
Faculty of Science
Second Year Second Semester Examination in Science- 2020/2021
(Feb/March-2024)
BT 2121, Plant Physiology

Answer all question

Time – 02 Hours

- Q1. (a). Identify the pigments in Specimen "A" by using the appropriate methodology.
(Attach your chromatography paper with the answer script for the evaluation)
- (b). Calculate the Rf values of the pigments you observed. **(30 minutes)**

- Q2. Using suitable sections of provided specimens B and C,
- (a). Identify anatomical features of B and C for photosynthesis.
- (b). Draw and differentiate the structures of B and C. **(40 minutes)**

- Q3. Identify and comment on the D and E regarding nutrient deficiency symptoms.
(10 minutes)

Q4. Following are the test results of an experiment which was done by using a Hydrilla plant and different colours of light with different distances from the plant to check some factor/factors affecting to the rate of a physiological process of plants. These experiments were replicated three times to get the data.

- (a) Identify the physiological process and the factor/ factors checked by this experiment.
(b) Construct a suitable graph of, distance from the plant vs a number of air bubbles.
(c) Write down the conclusion of this experiment according to your observation.

Serial No	Colour of light	Distance from plant	No. of air bubbles
1	Red	10cm	35,37,36
		20cm	20,18,22
		30cm	15,14,16
2	Blue	10cm	28,26,24
		20cm	12,10,11
		30cm	8,6,4
3	Green	10cm	1,2,2
		20cm	1,1,1
		30cm	0,0,1

(40 minutes)