

Uva Wellassa University, Sri Lanka  
End Semester Examination – June 2009  
BIO 313-1 Cell and Tissue Culture



Time: One (01) hour

Total 03 Questions

Answer two (02) questions only

- 01) a. Write a brief account on the essential components of a plant tissue culture medium. (30 marks)
- b. How do you add heat-labile components to a tissue culture medium? (05 marks)
- c. Name two commercially available ready to use plant tissue culture media. (05 marks)
- d. What is the function of sucrose in a tissue culture medium? (05 marks)
- e. Why is it important to adjust the pH of a tissue culture medium? (05 marks)
- 02) a. Name the five main classes of plant growth regulators used in tissue culture. (10 marks)
- b. Give examples for each of the classes you named in (a) and also explain their functions in plant tissue culture. (25 marks)
- c. What are Skoog and Miller's conclusions? (15 marks)

03) Write short notes on any three (03) of the followings:

- a. Embryo rescue
- b. Meristem culture
- c. Protoplast culture/fusion
- d. Cryopreservation

(50 marks)