



Uva Wellassa University, Sri Lanka
End Semester Examination – January 2010
SCT 101-3 Biology, Chemistry and
Environmental Science

Time: Three (03) hours

Index No.....

This paper consists of three parts: Part A, Part B and Part C

Answer all questions from Part A and Part B.

Answer four (04) questions from Part C.

Part C

1. A cross is made between true breeding round yellow pea seeds and wrinkled green seeds.
R=round, r=wrinkled, Y=yellow, y=green seeds
Draw the punnette square for F₂ generation and find the phenotypic ratio of F₂ generation.
(25 marks)

2. a) Write a short account on protein denaturation and renaturation

b) What is a Triglyceride
(25marks)

3. Aristotle (384 –322 BC) proposed the theory of spontaneous generation. The idea that “living things can arise from nonliving matter”. He gave the formation of maggots from rotten meat as example for this. Describe an experiment that you may conduct in the laboratory to prove or disprove this theory.
(25 marks)

4. a) Explain the structure of a typical surfactant molecule.
(5 marks)
b) Explain how soap remove an oil patch from a cloth.
(10 marks)
c) Write a short account on any one of the following.
i. Pesticides.
ii. Antibiotics.
(10 marks)

5. Discuss four ions that are found in groundwater and their effects.
(25 marks)

6. Write an account on “The impact of human activities on atmosphere”.
(25marks)

