Uva Wellassa University, Sri Lanka
Btech. Science and Technology
End Semester Examination- Semester 1
December -2008

SCT 212-2 – Diversity of life

Answer both Part A and Part B **Time: Two (02) Hours**

Part A : Answer three (3) questions including question number one (1).

1) Distinguish between following groups with examples
   I) New world monkeys and Old world monkeys
   II) Polychaeta and Oligochaeta
   III) Chondricthyes and Osteichthyes

(20 marks)

2) You are to deliver a speech on 'diversity of mammals and the adaptations they have gained, with the environment they are living'. Summarize your ideas with examples.

(15 marks)

3) (I) A scientist discovered a new animal species and described it as a chordate. Discuss the main characteristics that you expect to observe in that animal.

(II) Phylum Cnidaria has four main classes. List them with one special characteristic that can be used to differentiate each group. Give one example for each class.

(15marks)

4) (I) A vast red tide was seen in Southern coast of Sri Lanka. Imagine that you have been appointed as a consultant for this problem. You have isolated the causing organism for the red tide. Discuss main characteristics that you expect to see in this organism.

(II) Briefly describe phylum Nemertea.

(15marks)

Part B: Answer three (3) questions including question number one (1).

1) Write short notes on followings.

(I) Bacterial Flagellum

(II)Algal Coenobium

(III)Peat moss

(IV)Gametophyte of *Nephrolepis*

(20 marks)

2) (I) Distinguish between isogamy, anisogamy and oogamy in algae?

(II) Discuss similarities and differences in life cycles of *Chlamydomonas* and *Ulva*?

(15 marks)

3) (I) Describe the Mitosis division in fungal hyphae?

(II) Describe asexual reproductive diversity in Fungi with examples?

(III) Briefly describe the applications of modern fungal technology in relation to the economical improvements?

(15 marks)

4) (I) "Angiosperms is the most dominant group among the vascular plants." explain the statement?

(II) Explain "pollination and double fertilization" in Angiosperms?

(15 marks)