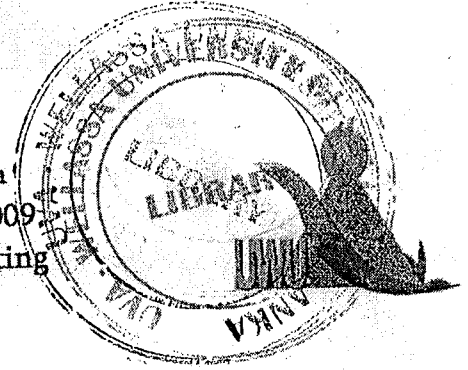


Uva Wellassa University, Sri Lanka
End Semester Examination – June 2009
BIO 493-1/ENG 493-1 Scientific Writing



Time: One (01) hour

Total number of questions: Three (03)
Answer for two (02) questions only.
All questions carry equal marks

Question 1 (100 marks)

Section I (50 marks)

- (a). (10 marks) List five essential sections of a Research Project Proposal?
- (b). (30 marks) Differentiate a scientific hypothesis from a research aim?
- (c). (10 marks) List five types of scientific literature that are recommended for referencing?

Section II (50 marks)

- (a). (30 marks) Some sections of a research project proposal is given below:
"Understanding how metal pollutants affect crops and forests is obviously of great importance to agriculture"

"[We wish to determine whether] in areas of high metal pollution, such as those near smelters, plants are exposed to metal stress through direct air borne pollution, or [indirectly] through accumulation in soils"

*"To investigate that current atmospheric deposition of Ni and Cu aerosols is the dominant source of metal stress in vegetation surrounding Kelaniya (Sri Lanka), seedlings of *Betula papyrfera* will be placed in each sampling location"*

State a hypothesis, a research aim, and a significant statement from this section (you may write relevant sentence/s in the answer script)

(b). Following citations were extracted from a research manuscript.

- (i). Gregg, S. J., Sing, K. S. W., 1982. *Adsorption, Surface Area and Porosity*. Academic Press, London.
- (ii). Barber, C., Davis, G.B., 1994. *Representative sampling of groundwater from boreholes*. In: Adriano, D., Iskandar, A.K., Murarka, I.P. (Eds.) *Contamination of Groundwaters, Advances in Environmental Science*. Northwood, pp. 141-160.
- (iii). Stephannatos, B.N., 1991. *Case studies signifying the importance of using site specific assumptions in developing cleanup levels at waste sites*. *Proceedings of the NWWA National Outdoor Action Conference, Las Vegas, Nevada (USA)*.
- (iv). Preston, C. M., 1995. *Application of NMR to soil organic matter analysis*. *Soil Sci. 161 (131)*.144-166.

(20 marks) List an example from the citations given above for following literature types: journal article, edited book, authored book and conference proceedings.

Question 2 (total 100 marks):

(a) (40 marks) Define following terms:

- (i). Impact factor
- (ii). Hit factor
- (iii). Plagiarism
- (iv). Science citation index

(b) Your task is calculating the year 2008 impact factor for a given journal (let's say Journal J). Following information is available:

Journal J

- A = Total cites in 2008
B = 2008 cites for the articles published in 2006 to 2007
C = Number of articles published in the journal in 2006 to 2007

- i. Write formula to calculate the Year 2008 impact factor for Journal J (20 marks)
- ii. When it is possible to calculate the impact factor for year 2009? (20 marks)

(c) Following impact factors were given for year 2008 (20 marks).

Journal	Impact Factor	Subject area
Journal of Cereal Chemistry	1.661	Food Chemistry
Langmuir	3.098	Physical Chemistry
Journal of Food Science	0.943	Food Chemistry
Journal of Physical Chemistry	3.678	Physical Chemistry
Food Research International	0.934	Food Chemistry

Out of the four journals given in the table, which journal can be recommended for Physical Chemistry discipline?