



**RAJARATA UNIVERSITY OF SRI LANKA
FACULTY OF APPLIED SCIENCES**

**B.Sc. (Special) Degree in Applied Biology
Fourth Year - Semester I Examination – January/February 2021**

BIO 4204 – SCIENTIFIC COMMUNICATION

Time: Two (02) hours

Answer ALL questions

1. a) Write a short account on the importance of scientific communication.
(50 marks)

 b) Comment briefly on the peer-review process and its importance in the scientific publication process.
(50 marks)

2. Write brief accounts on the following with reference to journal article writing.
 - a) COPE
 - b) Plagiarism
 - c) Salami slicing
 - d) Duplicate publications**(25x4 marks)**

3. Comment on the following with special reference to oral scientific presentation:
 - a) Gestures and connecting with audience
 - b) Handling a question-and-answer session
 - c) Presentation structure
 - d) PowerPoint slide preparations**(25x4 marks)**

4. The effective presentation of results is an integral part of scientific communication.

- a) Discuss briefly, the different ways data could be presented in a scientific publication and the considerations that have to be made when deciding between these options.

(50 marks)

- b) The table below shows data from a study using different methods of extracting potassium (K) in soils with different mineralogy (WS = Water Soluble; NaTPB = Sodium Tetraphenyl Boron; SD = Standard Deviation).

Soil	Clay (g kg ⁻¹)	Silt (g kg ⁻¹)	mg K kg ⁻¹ soil		
			WS	CaCl ₂	NaTPB
1	380	200	10	41	480
2	535	265	31	162	1208
3	410	230	15	57	583
4	434	205	19	70	652
5	485	235	27	100	932
6	610	282	50	290	1730
7	360	190	6	34	360
8	440	235	20	87	723
Mean	456.8	230.3	22.3	105.1	833.5
SD (±)	83.4	31.9	13.9	84.9	448.9

- i. Comment on the above table with special emphasis on how to improve the communication of the main message.

(30 marks)

- ii. Propose an appropriate title for the above table.

(20 marks)

5. a) Comment on the importance of scientific proposals.

(20 marks)

- b) Write brief accounts on the following with special reference to proposal writing:

- Introduction
- Material and methods
- Budget and budget justification
- Why some proposals fail?

(20x4 marks)