## BINDURA UNIVERSITY OF SCIENCE EDUCATION FACULTY OF AGRICULTURE AND ENVIRONMENTAL SCIENCE

AG122

[5 marks]

## Department of Animal Science BSc Agricultural Science Part I Examination INTRODUCTION TO BIOCHEMISTRY

3 HOURS (100 Marks)

INSTRUCTION: Answer any FOUR questions. Each question carries 25 marks

1.

a. Explain, with the aid of diagrams, the structure and functions of the following,

i. Cell wall.

ii. Chloroplast. [5 marks]

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b. Explain the benefits of cell compartmentation to cell metabolism. [15 marks]

2. Discuss the essential characteristics of water that makes it the medium of life. [25 marks]

3.

a) Explain why fats are considered as high energy compounds. [5 marks]

b) Discuss the biosynthesis of saturated fatty acids. [20 marks]

4. Discuss factors that affecting enzyme activity. [25 marks]

5. Discuss the classification of carbohydrates. [25 marks]

6. Discuss the uses of proteins and amino acids. [25 marks]

**END OF PAPER**