

**MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY**

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**University Examinations 2015/2016**

FIRST YEAR, FIRST SEMESTER EXAMINATION FOR BACHELOR OF SCIENCE IN PUBLIC HEALTH AND BACHELOR OF SCIENCE IN COMMUNITY HEALTH AND DEVELOPMENT

**SHV 3101: BIOCHEMISTRY I**

**DATE: NOVEMBER, 2015 TIME: HOURS**

**INSTRUCTIONS:** *Answer question* ***one COMPULSORY*** *and any other* ***two*** *questions.*

**QUESTION ONE – (30 MARKS)**

1. List six homopolysacharide and give their monomers. (3 Marks)
2. Outline the reaction catalysed by pyruvate kinase. (2 Marks)
3. Draw the structure of cholesterol. (4 Marks)
4. State the importance attributes of carbohydrates. (2 Marks)
5. List six functions of bile salt. (3 Marks)
6. State the fate of pyruvate in metabolism. (3 Marks)
7. Draw the structure of carnitine shuttle. (2 Marks)
8. Explain health as per WHO (World Health Organization) (2 Marks)
9. List the six class of enzymes and their functions. (3 Marks)
10. Outline the properties of denatured protein. (4 Marks)
11. List the function of glycosaminoglycans (GAGs) (2 Marks)

**QUESTION TWO (20 MARKS)**

Describe β-oxidation. (20 Marks)

**QUESTION THREE (20 MARKS)**

Discuss the process of protein synthesis. (20 Marks)

**QUESTION FOUR (20 MARKS)**

Discuss the four complex in respiratory chain reactions. (20 Marks)