



KENYATTA UNIVERSITY
UNIVERSITY EXAMINATIONS 2017/2018
FIRST SEMESTER EXAMINATION FOR THE DEGREE OF MASTER OF SCIENCE
IN MEDICAL BIOCHEMISTRY
SBC 876: MOLECULAR BASIS OF HEALTH

DATE: WEDNESDAY 22ND NOVEMBER 2017

TIME: 2.00 P.M. – 5.00 P.M.

INSTRUCTIONS

SECTION A: *Answer all questions (5 mark each)*

- 1) Describe the process for determining fetal lung maturity by amniotic fluid testing.
- 2) Outline the factors that influence the accuracy of Jendrassik-Grof liver test and the practices that minimize the errors.
- 3) Describe the treatment of hyponatremia and the care taken to avoid life threatening side effects.
- 4) Describe the aetiology and clinical manifestations of the contraction of extracellular body fluid.
- 5) Outline the process of determining creatinine clearance as a measure for glomerular filtration rate.
- 6) Describe the properties and importance of alkaline phosphates enzyme as a marker for liver function test.
- 7) Explain the clinical procedures for collection of sweat following pilocarpine stimulation.
- 8) Describe the chemical composition and aetiology of the various types of renal calculi.

SECTION B: Answer any **THREE** questions (20 marks each)

- 1) Discuss the protocol used to confirm the diagnosis of cystic fibrosis.
- 2) Discuss the properties and applications of biomarkers for the laboratory diagnosis of myocardial infarction.
- 3) Discuss the etiology, physiological response, laboratory findings and treatment of clinical case of acidosis.
- 4) Discuss the principles and procedure for screening neural tube defects in a foetus.