



ELIZADE UNIVERSITY, ILARA-MOKIN
FACULTY OF BASIC AND APPLIED SCIENCES,
DEPARTMENT OF PHYSICAL AND CHEMICAL SCIENCES
(BIOCHEMISTRY OPTION)
FIRST SEMESTER EXAMINATION (2016/2017 SESSION)

COURSE: BCH 205 (CELL AND MOLECULAR BIOLOGY)

TIME ALLOWED: TWO (2) HOURS, 30 MINUTES

HOD SIGNATURE:

A handwritten signature in black ink, enclosed in a rectangular box. The signature is cursive and appears to be 'P. S. O. O.'. A line from the signature extends downwards towards the instruction.

Instruction: Answer any four (4) questions

- (1a) State the cell theory.
- (1b) State three (3) differences between eukaryotic and prokaryotic cells.
- (1c) List five (5) organelles in the cell and their specific functions.

- (2a) Discuss the factors affecting enzyme activity.
- (2b) Differentiate between competitive and non-competitive enzyme inhibitors.
- (2c) Give five differences between fat soluble and water soluble vitamins.

- (3a) What is recombinant DNA?
- (3b) Describe the steps involved in recombinant DNA technology.
- (3c) State four applications of recombinant DNA technology.

- (4a) Explain the steps involved in viral replication.
- (4b) Describe the lytic and lysogenic cycles of viruses.
- (4c) State three (3) differences between bacteriophage and animal virus.

- (5a) Define cellular respiration.
- (5b) State why cellular respiration is;
 - i) Exergonic
 - ii) Catabolic
- (5c) Describe the various stages of cellular respiration.