

ELIZADE UNIVERSITY FACULTY OF BASIC AND APPLIED SCIENCES

DEPARTMENT: PHYSICAL AND CHEMICAL SCIENCES

PROGRAMME: BIOCHEMISTRY EXAM TITLE: DEGREE EXAMINATION

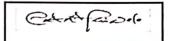
COURSE CODE & TITLE: BCII 202 - General Biochemistry II

TIME ALLOWED: 2 Hrs 30 mins.

SEMESTER/SESSION: 2nd SEMESTER/ 2020/2021

INSTRUCTIONS: Write your matric number on the question paper and cover page of the exam. booklet.

Answer any FOUR (4) questions.



HOD's SIGNATURE

(1a) (1b)	List three (3) enzyme complexes involved in electron transfer from NADH to Oxygen and their associated electron careers. Draw a simple scheme to illustrate how electrons are transferred from NADH to Oxygen	10 marks 5 marks
(2a) (2b)	What is Bioenergetics? State the 1 st and 2 nd Laws of Thermodynamics Give three (3) examples of a State Function. Define each State Function listed	9 marks 6 marks
(3a) (3b)	Differentiate between tricarboxylic acid cycle and the glyoxylate cycle. List five (5) polysaccharides and state where they are found in living organism.	10 marks 5 marks
(4a) (4b)	Using a comparative pathway only, describe glycolysis and gluconeogenesis. Describe the clinical significance of glycogenolysis in diabetes mellitus.	10 marks 5 marks
(5a) (5b) (5c)	Calculate the number of ATP generated per glucose molecule in cellular respiration State the fates of pyruvate under aerobic and anaerobic conditions Briefly, describe Cori cycle	9 marks 3 marks 3 marks
(6a) (6b)	Describe the Pentose Phosphate Pathway State the primary functions of pentose phosphate pathway and describe how a defect in the metabolism of glucose in this pathway influences the development of two	8 marks
	pathologies in humans	7marks