CHUKA  **UNIVERSITY**

UNIVERSITY EXAMINATIONS

SECOND YEAR EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE IN BIOCHEMISTRY

BMET 221: PATHOPHYSIOLOGY

STREAMS: BMET 221 **TIME: 2 HOURS**

DAY/DATE: TUESDAY 23/03/2021 **2.30 P.M – 4.30 P.M**

INSTRUCTIONS:

Answer question one and any other two questions

SECTION A (30 MARKS)

(a) Cells adapt to their environment to escape and protect themselves form injury. Outline four (4) most significant adaptive changes that can occur in cells. [4 marks]
(b) Differentiate between benign and malignant tumors. [4 marks]
(c) Describe any three (3) types of necrosis that can occur in tissues as a result of cellular injury. [6 marks]
(d) Explain how an increase in capillary hydrostatic pressure and a decrease in capillary oncotic pressure cause edema. [6 marks]
(e) Describe the two general types of disorders associated with of target cell insensitivity to hormones. [4 marks]
(f) Describe the pathophysiology of pernicious Anemia. [6 marks]

QUESTION TWO (20 MARKS)

(a) Describe the pathophysiology of Type 1A diabetes mellitus. [10 marks]
(b) Describe thee mechanism through which obesity contributes to the development of insulin resistance. [10 marks]

QUESTION THREE (20 MARKS)

(a) Describe the clinical manifestations of the different types of aneurysms. [10 marks]

(b) Describe the characteristics of the various types of emboli based on their occurrence. [10 marks]

QUESTION FOUR (20 MARKS)

(a) Describe cathexia as a clinical manifestation of cancer. [10 marks]

(b) Describe the different forma of chemotherapy as a treatment procedure for cancer. [10 marks]
