

CHUKA



UNIVERSITY

**UNIVERSITY EXAMINATIONS  
RESIT/SPECIAL EXAMINATION**

**EXAMINATION FOR THE AWARD OF DEGREE OF MASTER OF SCIENCE (NURSING)**

**NUMS 821: ADVANCED PATHOPHYSIOLOGY 1**

**STREAMS: MSCN (Y1T2**

**TIME: 3 HOURS**

**DAY/DATE: THURSDAY 04/11/2021**

**11.30 A.M – 2.30 P.M.**

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**INSTRUCTIONS:**

- Do not write anything on the question paper.
- Mobile phones and any other reference materials are **NOT** allowed in the examination room.
- The paper has five questions. **ALL** the Questions are compulsory.
- Number **ALL** your answers and indicate the order of appearance in the space provided in the cover page of the examination answer booklet.

**QUESTION ONE**

Madam X, who is now 6 weeks pregnant has just reported to the ANC clinic. You have done a thorough head to toe examination. You have noted that she is pale and has pitting oedema of the lower limbs as well as difficulty in breathing.

- a) Explain four factors that influence the movement of fluid between the different fluid compartments (10 marks)
- b) Discuss five (5) causes of hypertonic fluid imbalances in the body (10 marks)

**QUESTION TWO**

Cardio-metabolic /metabolic syndrome is a new disease entity that increases the likelihood of developing coronary artery disease(CAD) and stroke.

- a) Describe the five (5) features of this syndrome (10 marks)
- b) Discuss five (5) measures that can be undertaken to reduce the risk of cardiovascular disease in patient with cardio-metabolic syndrome (10 marks)

**QUESTION THREE**

Miss T, 18 years of age is admitted in the medical ward with severe respiratory distress. Her blood gas analysis indicates that she has developed respiratory acidosis.

- a) Discuss three (3) types of chemical buffers indicating how each operates (12 marks)
- b) Giving an example, explain four (4) possible causes of respiratory acidosis (8 marks)

**QUESTION FOUR**

When a cell is subjected to a stressful stimulus, it adapts. When a cell fails to adapt, it is injured and eventually death.

- a) Describe how mitochondrial damage cause cell injury (12 marks)
- b) Describe four (4) types of necrosis clearly indicating the cause and pathologic features. (8 marks)

**QUESTION FIVE**

Cardio-metabolic /metabolic syndrome is a new disease entity that increases the likelihood of developing coronary artery disease (CAD) and stroke.

- c) Describe the five (5) features of this syndrome (10 marks)
- d) Discuss five (5) measures that can be undertaken to reduce the risk of cardiovascular disease in patient with cardio-metabolic syndrome (10 marks )
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