



FACULTY OF ALLIED HEALTH SCIENCES, UNIVERSITY OF RUHUNA
Department of Nursing
1st End Semester Examination – 2026 – Old Curriculum
NUR 1122 – Physiology I – SEQ

Date: 24th July 2026

Time: 10.30 a.m. – 11.30 a.m.

Duration: 1 hour

Index Number:

Answer all questions using the space provided.

1. A 50-year-old man presented to the emergency department with palpitations and dizziness during vigorous exercise. The physician decides to assess the electrical activity and pumping function of his heart using an electrocardiogram (ECG).

- 1.1. Name the components of the cardiac electrical conduction system in the order in which the cardiac impulse travels through them. (05 marks)

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- 1.2. Using clearly labeled graphs, illustrate the action potential of:

- 1.2.1. a sinoatrial (SA) node pacemaker cell (15 marks)

1.2.2. a ventricular cardiac myocyte

(15 marks)

1.3. State five (05) physiological significances of the refractory period of the ventricular cardiac myocyte.

(10 marks)

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1.4. Briefly explain the major events of one cardiac cycle, beginning with atrial systole.

(20 marks)

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2.

2.1. Describe the role of the vomiting centre and briefly explain the neural pathways that carry signals to the vomiting centre to initiate vomiting. (30 marks)

This image shows a full page of white paper designed for handwriting practice. It features approximately 20 horizontal rows, each defined by two parallel dotted lines. The rows are evenly spaced and extend across the entire width of the page, providing a guide for letter height and placement. There are no margins, text, or other markings on the paper.

This image shows a full page of a handwriting practice sheet. It consists of multiple rows of horizontal dotted lines spaced evenly down the page, providing a guide for letter height and placement. The background is plain white, and there are no other markings or text present.

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2.4. Briefly describe the substances synthesised by the liver and their functions. (30 marks)

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