BOWEN UNIVERSITY, IWO

B. PHYSIOTHERAPY PROGRAMME

2022/2023 SESSION FIRST SEMESTER EXAMINATION

PST 417: CLINICAL MEASUREMENT AND INSTRUMENTATION

Date: 17/05/2023   **Time Allowed: Two (2) hours**

Instructions: Answer all questions

Section A: answer all questions in the question paper

Fill in the gap(s) with the appropriate words

1. Forced vital capacity is often reduced in COPD because of _____

Stroke volume is determined by

2. _____

3. _____ and

4. _____

Arterial blood pressure is determined by

5. _____

6. _____

Given the parameters below answer questions 26 - 30

Tidal volume – 500ml; Expiratory Reserve Volume - 1.24 litres; Total Lung Capacity – 6.0 litres

Functional Residual Capacity – 2.55 litres; Forced Vital capacity – 2.5 litres

Arterial blood pressure – 124/72mmHg

Calculate

7.   The residual volume_____

8.   The maximum volume of air inhaled after normal expiration_____

9.   The maximum volume of air exhaled from the point of maximum inspiration_____

10.   The pulse pressure is low   **TRUE/FALSE**

Section B: Answer all questions in the answer booklet provided

1   a. Describe the procedure for goniometry (5marks)

b. Outline the limitations to the usefulness of oxford muscle grading system (4 marks)

c. Outline the importance of anthropometric measurement in physiotherapy practice (5 marks)

d. Highlight six factors to be considered when measuring waist and hip circumference (3 marks)

e. Outline the procedure for measuring skin fold thickness (5 marks)

f. How is waist to hip ratio interpreted? (3 marks)

2.   Write short notes on the following

a. Cardiac index (4 marks)

b. Forced Expiratory Volume (FEV1) (4 marks)

c. Test-retest reliability (2 marks)

d. Confounding variable (2 marks)

e. Qualitative Variable (2 marks)

3.   An eighty-year-old non-verbal man with dementia was referred to your clinic following a fall.
a. Describe how you would assess pain in this patient? (5 marks)
b. Mention a pain rating scale that can aid your assessment (1 mark)

4.   a. Describe the classification of measuring tools (10 marks)
b. Describe the properties of real-number system (5 marks)