AMREF INTERNATIONAL UNIVERSITY

SCHOOL OF MEDICAL SCIENCES

DEPARTMENT OF REHABILIATION MEDICINE

BACHELOR OF SCIENCE IN PHYSIOTHERAPY

END OF TRIMESTER EXAMINATIONS SEPTEMBER TO DECEMBER 2025

UNIT CODE: PHT 311

UNIT NAME: Clinical reasoning (main exam)

DATE: 2nd DECEMBER 2025

TIME: 11.15am-1.15pm

INSTRUCTIONS

1. **All students will have two (2) hours to complete the examination**
2. **This is an online exam, Attempt all questions as per the instruction**
3. **It is the student's responsibility to report any page and number missing in this paper.**
4. **Check that the paper is complete**
5. **Total number of pages is 6 including the cover.**
6. **Read through the paper quickly before you start.**

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SECTION A: Multiple choice questions (30 Marks)

1. What is the fundamental difference between clinical reasoning and clinical decision making?
a) Clinical reasoning is about intuition, while decision making is about logic.
b) Clinical reasoning is the thinking process, while clinical decision making is the action chosen.
c) Clinical reasoning is for experts, while decision making is for novices.
d) There is no significant difference; the terms are interchangeable.

2. A clinician who immediately recognizes a cluster of symptoms as a specific condition like Parkinson's disease is primarily using:
a) Hypothetico-deductive reasoning
b) Narrative reasoning
c) Collaborative reasoning
d) Pattern recognition

3. The primary goal of developing an "early diagnostic hypothesis" is to:
a) Give the patient a quick, definitive answer.
b) Provide a framework to guide a focused examination.
c) Replace the need for a physical examination.
d) Fulfill documentation requirements for insurance.

4. In the SCRIPT tool, the 'R' (Red Flags) is primarily used to:
a) Identify the patient's insurance limitations.
b) Screen for signs of serious pathology.
c) Determine the patient's favorite exercises.
d) Document the color of a wound.

5. Which clinical reasoning model is most concerned with understanding the patient's unique illness experience and personal story?
a) Diagnostic Reasoning
b) Pattern Recognition
c) Narrative Reasoning
d) Hypothetico-deductive Reasoning

6. The integration of the best available research evidence, clinical expertise, and patient values is known as:
a) Critical Thinking
b) Professional Judgment
c) Evidence-Based Practice
d) Clinical Reasoning

7. When a physical therapist discusses a complex case with a physician and an occupational therapist, they are engaging in:
a) Dialectical Reasoning
b) Narrative Reasoning

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c) Collaborative Reasoning
d) Pattern Recognition

8. The cognitive process of analyzing information, questioning assumptions, and evaluating evidence is known as:
a) Clinical Decision Making
b) Critical Thinking
c) Professional Judgment
d) Diagnostic Error

9. A novice clinician who gathers data and then creates a list of possible diagnoses before testing them is using:
a) Forward Reasoning
b) Pattern Recognition
c) Hypothetico-deductive Reasoning
d) Narrative Reasoning

10. The core principle of patient-centred care is that care should be:
a) The fastest and cheapest option available.
b) Based solely on the clinician's extensive experience.
c) Respectful of and responsive to patient preferences, needs, and values.
d) Determined entirely by the latest research evidence.

11. The 'S' in the SCRIPT tool stands for:
a) Systemic review
b) Subjective history
c) Specific diagnosis
d) Safety precautions

12. The progression from a novice who follows rules to an expert who uses intuition is known as the development of:
a) Evidence-based practice
b) Clinical reasoning expertise
c) Diagnostic error mitigation
d) Collaborative networks

13. Using "well-tolerated examination and intervention strategies" is part of clinical reasoning implementation primarily to:
a) Save time during a busy clinic day.
b) Ensure patient safety and build rapport.
c) Avoid using expensive equipment.
d) Make documentation easier.

14. The ability to make a sound decision in the face of incomplete information or uncertainty is a key aspect of:
a) Critical Thinking
b) Professional Judgment
c) Pattern Recognition
d) The SCRIPT tool

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15. Facilitating clinical decision-making in students is best achieved by an educator who:
a) Allows students to make mistakes without guidance.
b) Makes their own invisible thinking processes visible.
c) Provides all the answers at the beginning of the session.
d) Focuses only on the student's technical skills.

16. Involving clients in clinical decision making is a process known as:
a) Paternalistic care
b) Evidence-based practice
c) Shared decision-making
d) Diagnostic reasoning

17. Which of the following is a risk associated with over-reliance on pattern recognition?
a) It is too slow for clinical practice.
b) It requires too much collaboration.
c) It can lead to cognitive biases and diagnostic error.
d) It ignores the patient's subjective history.

18. The 'T' in the SCRIPT tool leads directly to:
a) Telephone consultation with a doctor.
b) Treatment planning and intervention.
c) Testing of red flags.
d) Time-based goals.

19. Dialectical reasoning in a clinical context most likely involves:
a) Ignoring conflicting information to reach a quick decision.
b) Considering and synthesizing opposing viewpoints or data.
c) Telling the patient a story about a similar case.
d) Working only within a single professional discipline.

20. The "language of clinical reasoning" when speaking to a patient should be:
a) Full of complex medical terminology to establish authority.
b) Clear, jargon-free, and understandable.
c) Exactly the same as when speaking to another clinician.
d) Minimized to avoid confusing the patient.

21. The main purpose of the "Interpretive" phase in the SCRIPT tool is to:
a) Conduct the physical examination.
b) Formulate and list clinical hypotheses.
c) Take the patient's subjective history.
d) Identify red flags.

22. Critical thinking helps to mitigate the risk of diagnostic error by:
a) Ensuring the clinician always uses pattern recognition.
b) Allowing the clinician to rely solely on their first instinct.
c) Promoting the objective analysis of evidence and identification of bias.
d) Reducing the need for a patient interview.

23. Which model is often described as "backward reasoning"?
a) Pattern Recognition

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b) Narrative Reasoning
c) Collaborative Reasoning
d) Hypothetico-deductive Reasoning

24. The concept of "patient-centred care" is most directly supported by which reasoning model?
a) Pattern Recognition
b) Narrative Reasoning
c) Hypothetico-deductive Reasoning
d) Diagnostic Reasoning

25. After the "Subjective" and "Clinical Presentation" in SCRIPT, the next cognitive step is to:
a) Begin treatment immediately.
b) Formulate an "Interpretive" hypothesis.
c) Discharge the patient.
d) Refer to another professional.

26. What is a key characteristic of an 'expert' clinician's reasoning compared to a 'novice'?
a) The expert follows a rigid, step-by-step process every time.
b) The expert relies more on intuitive pattern recognition.
c) The expert avoids generating early hypotheses.
d) The expert does not use evidence-based practice.

27. The 'C' in the SCRIPT tool refers to:
a) Critical thinking
b) Collaborative reasoning
c) Clinical presentation (observed signs)
d) Client-centred care

28. Making choices in the delivery of care based on a defined problem and examined evidence is the culmination of:
a) Clinical Reasoning
b) The Subjective History
c) Pattern Recognition
d) Diagnostic Error

29. An educator asking a student, "What is your leading hypothesis and why?" is attempting to:
a) Criticize the student's knowledge.
b) Facilitate the student's clinical reasoning.
c) Take over the patient interaction.
d) Test the patient's understanding.

30. The ultimate goal of effectively communicating clinical reasoning and involving the client is to achieve:
a) A faster discharge.
b) A more complex treatment plan.
c) Shared decision-making and patient-centred care.
d) Less paperwork for the clinician.

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SECTION B: short structure questions (20 Marks)

1. Differentiate between 'hypothetico-deductive reasoning' and 'pattern recognition' as clinical reasoning models. Provide a typical clinical scenario where a novice and an expert might each use one of these models. (5 marks)

2. Briefly describe the purpose of the SCRIPT tool in clinical practice. List and explain three key elements that the acronym SCRIPT might represent to guide a clinician's thinking. (5 marks)

3. Explain the concept of 'illness scripts' and its role in the development of clinical reasoning expertise. How does an 'illness script' differ from a simple list of disease symptoms? (5 marks)

4. Define 'patient-centred care' in the context of clinical decision making. Describe two specific strategies a clinician can use to actively involve a client in their own care planning. (5 marks)

SECTION B: Long structured essay questions choose 1 or 2 (20marks)

1. Critically discuss the statement: "Clinical reasoning is more than just getting the right diagnosis."

In your essay, you should:

a) Define clinical reasoning and distinguish it from diagnostic reasoning.
b) Explain the role of narrative reasoning and collaborative reasoning in developing a holistic understanding of a patient's situation.
c) Discuss how clinical reasoning guides the entire patient journey, including the selection of well-tolerated examination and intervention strategies, and the mitigation of diagnostic error.
d) Use a clinical example (e.g., a patient with chronic low back pain or newly diagnosed diabetes) to illustrate your points.

2. A key responsibility of a senior clinician is to foster clinical reasoning skills in students. Design a comprehensive framework for facilitating clinical decision-making in students during a clinical placement.

Your framework should include:

a) An explanation of one clinical reasoning model you would teach them initially.
b) Three specific facilitation strategies you would use (e.g., questioning techniques, "think-aloud" protocols, structured reflection).
c) A discussion on how you would guide a student to integrate "evidence-based practice" and "professional judgment" when these appear to conflict.
d) An explanation of how you would assess the development of a student's clinical reasoning capabilities, moving beyond just the correctness of their final decision.