

CSMLS Mixed Mock Exam #1

Canadian MLT Exam Preparation

Format	210 items mixed difficulty final mock exam style
Includes	Exam Mode, built-in answer sheet, score guide, Review Mode, and weak area tracker
Best Use	Answer all questions first without spoilers, then review rationales and exam traps.

210 ITEMS | EXAM MODE + REVIEW MODE | PRINTABLE ANSWER SHEET

HOW TO USE THIS MOCK EXAM

- 1 Set a timer and complete Part 1 without checking answers.
- 2 Use the built-in answer sheet. Mark any question you want to revisit.
- 3 Score your exam before reading the rationales.
- 4 Review every missed or flagged question in Part 2.
- 5 Use the weak area tracker to decide what to review next.

Suggested Timing

Aim for steady pacing. For a 210-item mock exam, a practical target is about 1 minute per question, then additional time for flagged questions if your exam strategy allows it.

Study Rule

Do not study from the answer key first. The value of a mock exam is in identifying weak areas under test-like conditions.

SCORE GUIDE + WEAK AREA TRACKER

Score	Interpretation	Next Step
178-210	Strong readiness	Maintain review and focus on flagged items
147-178	Good base	Review weak areas and repeat timed practice
126-147	Needs focused review	Rebuild topics with frequent misses
Below 126	Foundation review needed	Pause full mocks and return to core concepts

Weak Area Tracker

Field / Skill Area	Questions Missed	Review Priority
Clinical Chemistry / QC	_____	Low / Med / High
Hematology / Coagulation	_____	Low / Med / High
Microbiology	_____	Low / Med / High
Transfusion Medicine	_____	Low / Med / High
Histopathology	_____	Low / Med / High
Pre-analytical / Specimen Quality	_____	Low / Med / High
Mixed Bench Workflow	_____	Low / Med / High

MOCK EXAM ANSWER SHEET

Use this section for Exam Mode. Circle or write your answer, flag uncertain items, then mark correct/incorrect after scoring.

Questions 1-50

Q#	Ans	Flag	Correct	Notes	Q#	Ans	Flag	Correct	Notes
1	_____	[]	[]	_____	26	_____	[]	[]	_____
2	_____	[]	[]	_____	27	_____	[]	[]	_____
3	_____	[]	[]	_____	28	_____	[]	[]	_____
4	_____	[]	[]	_____	29	_____	[]	[]	_____
5	_____	[]	[]	_____	30	_____	[]	[]	_____
6	_____	[]	[]	_____	31	_____	[]	[]	_____
7	_____	[]	[]	_____	32	_____	[]	[]	_____
8	_____	[]	[]	_____	33	_____	[]	[]	_____
9	_____	[]	[]	_____	34	_____	[]	[]	_____
10	_____	[]	[]	_____	35	_____	[]	[]	_____
11	_____	[]	[]	_____	36	_____	[]	[]	_____
12	_____	[]	[]	_____	37	_____	[]	[]	_____
13	_____	[]	[]	_____	38	_____	[]	[]	_____
14	_____	[]	[]	_____	39	_____	[]	[]	_____
15	_____	[]	[]	_____	40	_____	[]	[]	_____
16	_____	[]	[]	_____	41	_____	[]	[]	_____
17	_____	[]	[]	_____	42	_____	[]	[]	_____
18	_____	[]	[]	_____	43	_____	[]	[]	_____
19	_____	[]	[]	_____	44	_____	[]	[]	_____
20	_____	[]	[]	_____	45	_____	[]	[]	_____
21	_____	[]	[]	_____	46	_____	[]	[]	_____
22	_____	[]	[]	_____	47	_____	[]	[]	_____
23	_____	[]	[]	_____	48	_____	[]	[]	_____
24	_____	[]	[]	_____	49	_____	[]	[]	_____
25	_____	[]	[]	_____	50	_____	[]	[]	_____

PART 1 - EXAM MODE: QUESTIONS ONLY

Answer first without rationales. Mark anything you want to review later.

Question 1

A urine specimen for culture arrives 7 hours after collection at room temperature with no preservative. What is the best action?

- A. Process because urine culture organisms remain stable
- B. Reject or request recollection according to policy
- C. Centrifuge and culture the sediment only
- D. Add boric acid after arrival and process

My answer: _____ Flag: [] Confidence: Low / Medium / High

Question 2

A patient has hemoglobin 72 g/L, MCV 68 fL, low ferritin, and high TIBC. Which condition is most consistent?

- A. Iron deficiency anemia
- B. Anemia of chronic disease
- C. Vitamin B12 deficiency
- D. Hereditary spherocytosis

My answer: _____ Flag: [] Confidence: Low / Medium / High

Question 3

A serum potassium result is 6.4 mmol/L, but the specimen is grossly hemolyzed. What should the technologist do?

- A. Release the result immediately as critical
- B. Dilute the specimen and rerun potassium
- C. Suppress or comment according to hemolysis index policy and request recollection
- D. Report potassium as normal because hemolysis invalidates all chemistry tests

My answer: _____ Flag: [] Confidence: Low / Medium / High

Question 4

A group O RhD-negative patient requires emergency red cells before compatibility testing is complete. Which product is most appropriate?

- A. Group AB RhD-positive red cells
- B. Group O RhD-negative red cells
- C. Group A RhD-negative red cells
- D. Group O RhD-positive plasma

My answer: _____ Flag: [] Confidence: Low / Medium / High

Question 5

A tissue specimen for routine histology is submitted in saline instead of formalin after sitting overnight. What is the main concern?

- A. Excessive fixation
- B. Tissue autolysis
- C. Increased paraffin infiltration
- D. Over-decalcification

My answer: _____ Flag: [] Confidence: Low / Medium / High

Question 6

A sputum Gram stain shows many squamous epithelial cells and few neutrophils. What does this indicate?

- A. High-quality lower respiratory specimen
- B. Possible saliva contamination
- C. Anaerobic lung abscess
- D. Heavy bacterial infection

My answer: _____ Flag: [] Confidence: Low / Medium / High

Question 7

A blood film shows target cells, microcytosis, and basophilic stippling. Which condition should be considered?

- A. Thalassemia
- B. Acute leukemia
- C. Aplastic anemia
- D. Autoimmune hemolytic anemia

My answer: _____ Flag: [] Confidence: Low / Medium / High

Question 8

A glucose QC result is outside 3 SD on one level, while the second level is acceptable. What is the best immediate action?

- A. Release patient results because one level passed
- B. Repeat QC and investigate before reporting
- C. Change the reference interval
- D. Report only abnormal patient results

My answer: _____ Flag: [] Confidence: Low / Medium / High

Question 9

A newborn has a positive DAT and jaundice. The mother is group O RhD-positive, and the baby is group A RhD-positive. What is the likely cause?

- A. ABO hemolytic disease of the newborn
- B. RhD hemolytic disease only
- C. Cold agglutinin disease
- D. Delayed hemolytic transfusion reaction

My answer: _____ Flag: [] Confidence: Low / Medium / High

Question 10

Which fixative is routinely used for most surgical pathology specimens?

- A. 10% neutral buffered formalin
- B. Methanol
- C. Acetone
- D. Glutaraldehyde only

My answer: _____ Flag: [] Confidence: Low / Medium / High

PART 2 - REVIEW MODE: ANSWERS + RATIONALES

Use this section after completing Exam Mode. Review missed and flagged questions first, then scan all rationales.

Question 1

A urine specimen for culture arrives 7 hours after collection at room temperature with no preservative. What is the best action?

- A. Process because urine culture organisms remain stable
- B. Reject or request recollection according to policy
- C. Centrifuge and culture the sediment only
- D. Add boric acid after arrival and process

Correct Answer	B. Reject or request recollection according to policy.
Rationale	Delayed unrefrigerated urine may allow bacterial overgrowth, making culture interpretation unreliable.
Exam Trap	Do not dismiss sterile-site or critical microbiology clues as contamination without applying the proper workflow.
Key Review Point	Delayed unrefrigerated urine may allow bacterial overgrowth, making culture interpretation unreliable.

Question 2

A patient has hemoglobin 72 g/L, MCV 68 fL, low ferritin, and high TIBC. Which condition is most consistent?

- A. Iron deficiency anemia
- B. Anemia of chronic disease
- C. Vitamin B12 deficiency
- D. Hereditary spherocytosis

Correct Answer	A. Iron deficiency anemia.
Rationale	Low ferritin with microcytosis and increased TIBC is classic for iron deficiency anemia.
Exam Trap	Avoid the answer that ignores the bench clue; this style of question is testing safe workflow plus interpretation.
Key Review Point	Low ferritin with microcytosis and increased TIBC is classic for iron deficiency anemia.

Question 3

A serum potassium result is 6.4 mmol/L, but the specimen is grossly hemolyzed. What should the technologist do?

- A. Release the result immediately as critical
- B. Dilute the specimen and rerun potassium
- C. Suppress or comment according to hemolysis index policy and request recollection
- D. Report potassium as normal because hemolysis invalidates all chemistry tests

Correct Answer	C. Suppress or comment according to hemolysis index policy and request recollection.
Rationale	Hemolysis releases intracellular potassium and may falsely increase the result.
Exam Trap	Do not treat the result as automatically reportable when the stem gives a specimen-quality, stability, or interference clue.
Key Review Point	Hemolysis releases intracellular potassium and may falsely increase the result.

Question 4

A group O RhD-negative patient requires emergency red cells before compatibility testing is complete. Which product is most appropriate?

- A. Group AB RhD-positive red cells
- B. Group O RhD-negative red cells
- C. Group A RhD-negative red cells
- D. Group O RhD-positive plasma

Correct Answer	B. Group O RhD-negative red cells.
Rationale	Group O RhD-negative red cells are commonly used when emergency red cells are needed before testing is complete.
Exam Trap	Do not skip verification, communication, compatibility, or documentation steps just because the workflow is urgent.
Key Review Point	Group O RhD-negative red cells are commonly used when emergency red cells are needed before testing is complete.

Question 5

A tissue specimen for routine histology is submitted in saline instead of formalin after sitting overnight. What is the main concern?

- A. Excessive fixation
- B. Tissue autolysis
- C. Increased paraffin infiltration
- D. Over-decalcification

Correct Answer	B. Tissue autolysis.
Rationale	Unfixed tissue deteriorates due to autolysis, compromising microscopic morphology.
Exam Trap	Avoid the answer that ignores the bench clue; this style of question is testing safe workflow plus interpretation.
Key Review Point	Unfixed tissue deteriorates due to autolysis, compromising microscopic morphology.

Question 6

A sputum Gram stain shows many squamous epithelial cells and few neutrophils. What does this indicate?

- A. High-quality lower respiratory specimen
- B. Possible saliva contamination
- C. Anaerobic lung abscess
- D. Heavy bacterial infection

Correct Answer	B. Possible saliva contamination.
Rationale	Many squamous epithelial cells suggest the specimen is contaminated with oral material.
Exam Trap	Do not dismiss sterile-site or critical microbiology clues as contamination without applying the proper workflow.
Key Review Point	Many squamous epithelial cells suggest the specimen is contaminated with oral material.

Question 7

A blood film shows target cells, microcytosis, and basophilic stippling. Which condition should be considered?

- A. Thalassemia
- B. Acute leukemia
- C. Aplastic anemia
- D. Autoimmune hemolytic anemia

Correct Answer	A. Thalassemia.
Rationale	Thalassemia commonly shows microcytosis, target cells, and sometimes basophilic stippling.
Exam Trap	Do not treat the result as automatically reportable when the stem gives a specimen-quality, stability, or interference clue.
Key Review Point	Thalassemia commonly shows microcytosis, target cells, and sometimes basophilic stippling.

Question 8

A glucose QC result is outside 3 SD on one level, while the second level is acceptable. What is the best immediate action?

- A. Release patient results because one level passed
- B. Repeat QC and investigate before reporting
- C. Change the reference interval
- D. Report only abnormal patient results

Correct Answer	B. Repeat QC and investigate before reporting.
Rationale	A 1 σ s QC rule violation requires investigation before patient results are released.
Exam Trap	QC, calibration, and verification clues control whether patient results can be released.
Key Review Point	A 1 σ s QC rule violation requires investigation before patient results are released.

Question 9

A newborn has a positive DAT and jaundice. The mother is group O RhD-positive, and the baby is group A RhD-positive. What is the likely cause?

- A. ABO hemolytic disease of the newborn
- B. RhD hemolytic disease only
- C. Cold agglutinin disease
- D. Delayed hemolytic transfusion reaction

Correct Answer	A. ABO hemolytic disease of the newborn.
Rationale	Group O mothers can produce IgG anti-A or anti-B that crosses the placenta and coats newborn red cells.
Exam Trap	Do not treat the result as automatically reportable when the stem gives a specimen-quality, stability, or interference clue.
Key Review Point	Group O mothers can produce IgG anti-A or anti-B that crosses the placenta and coats newborn red cells.