

CANADIAN LAB NOTES

CAMLPR Field-of-Practice Mock Exam 1

CAMLPR-Style Canadian MLT Field-of-Practice Mock Exam

300 Questions	5 Field Exams	Built-in Answer Sheet	Full Review Mode
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Exam Mode	Review Mode	Study Tracker
Answer first without spoilers using the built-in answer sheet.	Check each answer with rationale, exam trap, and key review point.	Use the field tracker to identify weak areas by subject.

This mock exam is designed as a field-of-practice study tool. Complete the questions first, then review the rationales after scoring your answer sheet.

How to Use This Mock Exam

1	Set a realistic study block. Treat each 60-question field section like a mini exam.
2	Answer in Exam Mode first. Do not peek at Review Mode.
3	Use the built-in answer sheet. Flag uncertain items so you can review them later.
4	Score each field separately. This shows whether one subject needs more review.
5	Read Review Mode carefully. Pay attention to the exam traps and key review points.

Score Guide

51-60	Strong field readiness. Keep reviewing weak traps and timing.
42-50	Good base. Review missed questions and repeat weak topics.
36-41	Borderline. Rebuild high-yield foundations and retest.
Below 36	Needs focused review before relying on mock performance.

Field Weak Area Tracker

Clinical Chemistry	___ / 60	___	Low / Med / High	_____
Hematology	___ / 60	___	Low / Med / High	_____
Microbiology	___ / 60	___	Low / Med / High	_____
Transfusion Science	___ / 60	___	Low / Med / High	_____
Histotechnology/Histopathology	___ / 60	___	Low / Med / High	_____

Answer Sheet - Clinical Chemistry

Use this page for Exam Mode. Mark your answer, flag uncertain questions, then score after completing the section.

Q#	Ans	Flag	Correct	Notes
1	___	[]	[]	_____
2	___	[]	[]	_____
3	___	[]	[]	_____
4	___	[]	[]	_____
5	___	[]	[]	_____
6	___	[]	[]	_____
7	___	[]	[]	_____
8	___	[]	[]	_____
9	___	[]	[]	_____
10	___	[]	[]	_____
11	___	[]	[]	_____
12	___	[]	[]	_____
13	___	[]	[]	_____
14	___	[]	[]	_____
15	___	[]	[]	_____
16	___	[]	[]	_____
17	___	[]	[]	_____
18	___	[]	[]	_____
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23	___	[]	[]	_____
24	___	[]	[]	_____
25	___	[]	[]	_____
26	___	[]	[]	_____
27	___	[]	[]	_____
28	___	[]	[]	_____
29	___	[]	[]	_____
30	___	[]	[]	_____

Q#	Ans	Flag	Correct	Notes
31	___	[]	[]	_____
32	___	[]	[]	_____
33	___	[]	[]	_____
34	___	[]	[]	_____
35	___	[]	[]	_____
36	___	[]	[]	_____
37	___	[]	[]	_____
38	___	[]	[]	_____
39	___	[]	[]	_____
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52	___	[]	[]	_____
53	___	[]	[]	_____
54	___	[]	[]	_____
55	___	[]	[]	_____
56	___	[]	[]	_____
57	___	[]	[]	_____
58	___	[]	[]	_____
59	___	[]	[]	_____
60	___	[]	[]	_____

Score	Flagged	Top Weak Topic
___ / 60	___	_____

Field Exam: Clinical Chemistry

60 Questions | Exam Mode

Question 1

Which specimen type is most commonly used for routine serum chemistry testing?

- A. Sodium citrate plasma
- B. EDTA whole blood
- C. Swab transport medium
- D. Clotted blood collected in a serum separator tube

Question 2

Which analyte is most directly affected by hemolysis?

- A. Bicarbonate
- B. Chloride
- C. Potassium
- D. Sodium

Question 3

Which test is most commonly used to monitor long-term glycemic control?

- A. Random glucose
- B. Serum osmolality
- C. Urine ketones
- D. HbA1c

Question 4

Which analyte is commonly used to assess renal filtration function?

- A. Bilirubin
- B. Troponin
- C. Creatinine
- D. Amylase

Question 5

Which tube additive inhibits glycolysis for glucose preservation?

- A. EDTA
- B. Sodium citrate
- C. Plain clot activator only
- D. Sodium fluoride

Field Exam: Hematology

60 Questions | Exam Mode

Question 1

Which anticoagulant is used for routine CBC testing?

- A. Sodium citrate
- B. Plain red-top only
- C. Sodium fluoride
- D. EDTA

Question 2

Which cell type is primarily responsible for oxygen transport?

- A. Monocyte
- B. Neutrophil
- C. Red blood cell
- D. Platelet

Question 3

Which index reflects average red cell size?

- A. MCHC
- B. MPV
- C. MCV
- D. RDW

Question 4

Which result is most consistent with thrombocytopenia?

- A. Platelet count below the reference interval
- B. Hemoglobin above reference interval
- C. WBC count above reference interval
- D. MCV above reference interval

Question 5

Which stain is routinely used for peripheral blood film morphology?

- A. Congo red only
- B. Wright-Giemsa type stain
- C. Ziehl-Neelsen stain
- D. Gram stain

Field Exam: Microbiology

60 Questions | Exam Mode

Question 1

Which specimen is preferred for diagnosing bloodstream infection?

- A. Unlabelled urine cup
- B. Blood collected aseptically into blood culture bottles
- C. Sputum in EDTA tube
- D. Dry swab of skin

Question 2

Which stain differentiates bacteria by cell wall structure?

- A. Gram stain
- B. Prussian blue stain
- C. PAS stain
- D. Wright stain

Question 3

Which organism is a common cause of uncomplicated urinary tract infection?

- A. *Bacillus subtilis*
- B. *Escherichia coli*
- C. *Micrococcus luteus*
- D. *Lactobacillus* only

Question 4

Which medium is selective and differential for many enteric Gram-negative bacilli?

- A. Blood agar only
- B. Sabouraud agar
- C. MacConkey agar
- D. Chocolate agar only

Question 5

Which atmosphere is commonly needed for *Campylobacter* culture?

- A. Room air only
- B. Strictly anaerobic blood-free atmosphere only
- C. Microaerophilic atmosphere
- D. High oxygen hyperbaric chamber

Field Exam: Transfusion Science

60 Questions | Exam Mode

Question 1

Which antigen system is most important in routine ABO grouping?

- A. A and B antigens on red cells
- B. Platelet antigens only
- C. K antigen only
- D. HLA antigens only

Question 2

Which blood group has anti-A and anti-B in plasma?

- A. Group AB
- B. Group O
- C. Group A
- D. Group B

Question 3

Which component is most appropriate for increasing oxygen-carrying capacity?

- A. Cryoprecipitate
- B. Platelets
- C. Red blood cells
- D. Fresh frozen plasma only

Question 4

Which component is used to treat thrombocytopenic bleeding?

- A. Albumin only
- B. Platelets
- C. Red cells
- D. Rh immune globulin

Question 5

Which testing is included in a routine type and screen?

- A. ABO/Rh grouping and antibody screen
- B. Kleihauer test only
- C. DAT only
- D. Platelet count only

Field Exam: Histotechnology/Histopathology

60 Questions | Exam Mode

Question 1

What is the primary purpose of fixation?

- A. Make tissue radioactive
- B. Create bacterial growth
- C. Preserve tissue morphology and prevent autolysis
- D. Remove all proteins

Question 2

Which fixative is routinely used for many surgical pathology specimens?

- A. Distilled water
- B. 10% neutral buffered formalin
- C. Absolute xylene
- D. EDTA blood tube additive only

Question 3

Which instrument is used to cut thin paraffin sections?

- A. Centrifuge
- B. Spectrophotometer
- C. Microtome
- D. Autoclave only

Question 4

Which stain is routine for general tissue morphology?

- A. Hematoxylin and eosin
- B. India ink only
- C. Gram stain only
- D. Wright stain only

Question 5

What does hematoxylin primarily stain?

- A. Collagen black only
- B. Nuclei blue-purple
- C. Cytoplasm bright orange only
- D. Mucin red only

Review Mode: Clinical Chemistry

Correct Answer + Rationale + Exam Trap

Question 1

Which specimen type is most commonly used for routine serum chemistry testing?

- A. Sodium citrate plasma
- B. EDTA whole blood
- C. Swab transport medium
- D. Clotted blood collected in a serum separator tube

Correct Answer

D. Clotted blood collected in a serum separator tube

Rationale

Routine serum chemistry testing commonly uses serum after clotting, often collected in a serum separator tube depending on the test and local policy.

Exam Trap

Do not pick the option that only matches one clue while ignoring the specimen context, QC issue, or bench workflow.

Key Review Point

Routine serum chemistry testing commonly uses serum after clotting, often collected in a serum separator tube depending on the test and local policy.

Question 2

Which analyte is most directly affected by hemolysis?

- A. Bicarbonate
- B. Chloride
- C. Potassium
- D. Sodium

Correct Answer

C. Potassium

Rationale

Red cells contain high intracellular potassium, so hemolysis can falsely increase potassium results.

Exam Trap

Do not pick the option that only matches one clue while ignoring the specimen context, QC issue, or bench workflow.

Key Review Point

Red cells contain high intracellular potassium, so hemolysis can falsely increase potassium results.

Question 3

Which test is most commonly used to monitor long-term glycemic control?

- A. Random glucose
- B. Serum osmolality
- C. Urine ketones
- D. HbA1c

Correct Answer

D. HbA1c

Rationale

HbA1c reflects average glycemic exposure over several weeks and is used to monitor long-term diabetes control.

Exam Trap

Do not pick the option that only matches one clue while ignoring the specimen context, QC issue, or bench workflow.

Key Review Point

HbA1c reflects average glycemic exposure over several weeks and is used to monitor long-term diabetes control.

Question 4

Which analyte is commonly used to assess renal filtration function?

- A. Bilirubin
- B. Troponin
- C. Creatinine
- D. Amylase

Correct Answer

C. Creatinine

Rationale

Creatinine is used to assess kidney filtration and is incorporated into estimated glomerular filtration rate calculations.

Exam Trap

Do not pick the option that only matches one clue while ignoring the specimen context, QC issue, or bench workflow.

Key Review Point

Creatinine is used to assess kidney filtration and is incorporated into estimated glomerular filtration rate calculations.

Question 5

Which tube additive inhibits glycolysis for glucose preservation?

- A. EDTA
- B. Sodium citrate
- C. Plain clot activator only
- D. Sodium fluoride

Correct Answer

D. Sodium fluoride

Rationale

Fluoride inhibits glycolysis and helps preserve glucose when processing may be delayed.

Exam Trap

Do not pick the option that only matches one clue while ignoring the specimen context, QC issue, or bench workflow.

Key Review Point

Fluoride inhibits glycolysis and helps preserve glucose when processing may be delayed.

Review Mode: Hematology

Correct Answer + Rationale + Exam Trap

Question 1

Which anticoagulant is used for routine CBC testing?

- A. Sodium citrate
- B. Plain red-top only
- C. Sodium fluoride
- D. EDTA

Correct Answer

D. EDTA

Rationale

EDTA preserves cellular morphology and prevents clotting for routine hematology testing.

Exam Trap

Do not pick the option that only matches one clue while ignoring the specimen context, QC issue, or bench workflow.

Key Review Point

EDTA preserves cellular morphology and prevents clotting for routine hematology testing.

Question 2

Which cell type is primarily responsible for oxygen transport?

- A. Monocyte
- B. Neutrophil
- C. Red blood cell
- D. Platelet

Correct Answer

C. Red blood cell

Rationale

Red cells contain hemoglobin and transport oxygen.

Exam Trap

Do not pick the option that only matches one clue while ignoring the specimen context, QC issue, or bench workflow.

Key Review Point

Red cells contain hemoglobin and transport oxygen.

Question 3

Which index reflects average red cell size?

- A. MCHC
- B. MPV
- C. MCV
- D. RDW

Correct Answer

C. MCV

Rationale

MCV is the mean corpuscular volume and reflects average red cell size.

Exam Trap

Do not pick the option that only matches one clue while ignoring the specimen context, QC issue, or bench workflow.

Key Review Point

MCV is the mean corpuscular volume and reflects average red cell size.

Question 4

Which result is most consistent with thrombocytopenia?

- A. Platelet count below the reference interval
- B. Hemoglobin above reference interval
- C. WBC count above reference interval
- D. MCV above reference interval

Correct Answer

A. Platelet count below the reference interval

Rationale

Thrombocytopenia means a decreased platelet count.

Exam Trap

Do not pick the option that only matches one clue while ignoring the specimen context, QC issue, or bench workflow.

Key Review Point

Thrombocytopenia means a decreased platelet count.

Question 5

Which stain is routinely used for peripheral blood film morphology?

- A. Congo red only
- B. Wright-Giemsa type stain
- C. Ziehl-Neelsen stain
- D. Gram stain

Correct Answer

B. Wright-Giemsa type stain

Rationale

Romanowsky-type stains are used to evaluate blood film cell morphology.

Exam Trap

Do not pick the option that only matches one clue while ignoring the specimen context, QC issue, or bench workflow.

Key Review Point

Romanowsky-type stains are used to evaluate blood film cell morphology.

Question 6

Which white cell is commonly increased in bacterial infection?

- A. Plasma cell
- B. Basophil
- C. Neutrophil
- D. Reticulocyte

Correct Answer

C. Neutrophil

Rationale

Neutrophils commonly increase in acute bacterial infection and inflammation.

Exam Trap

Do not pick the option that only matches one clue while ignoring the specimen context, QC issue, or bench workflow.

Key Review Point

Neutrophils commonly increase in acute bacterial infection and inflammation.

Review Mode: Microbiology

Correct Answer + Rationale + Exam Trap

Question 1

Which specimen is preferred for diagnosing bloodstream infection?

- A. Unlabelled urine cup
- B. Blood collected aseptically into blood culture bottles
- C. Sputum in EDTA tube
- D. Dry swab of skin

Correct Answer

B. Blood collected aseptically into blood culture bottles

Rationale

Blood cultures require aseptic collection into appropriate bottles to recover bloodstream pathogens.

Exam Trap

Do not pick the option that only matches one clue while ignoring the specimen context, QC issue, or bench workflow.

Key Review Point

Blood cultures require aseptic collection into appropriate bottles to recover bloodstream pathogens.

Question 2

Which stain differentiates bacteria by cell wall structure?

- A. Gram stain
- B. Prussian blue stain
- C. PAS stain
- D. Wright stain

Correct Answer

A. Gram stain

Rationale

Gram stain separates organisms broadly into Gram-positive and Gram-negative groups.

Exam Trap

Do not pick the option that only matches one clue while ignoring the specimen context, QC issue, or bench workflow.

Key Review Point

Gram stain separates organisms broadly into Gram-positive and Gram-negative groups.

Question 3

Which organism is a common cause of uncomplicated urinary tract infection?

- A. Bacillus subtilis
- B. Escherichia coli
- C. Micrococcus luteus
- D. Lactobacillus only

Correct Answer

B. Escherichia coli

Rationale

E. coli is the most common bacterial cause of uncomplicated UTI.

Exam Trap

Do not pick the option that only matches one clue while ignoring the specimen context, QC issue, or bench workflow.

Key Review Point

E. coli is the most common bacterial cause of uncomplicated UTI.

Question 4

Which medium is selective and differential for many enteric Gram-negative bacilli?

- A. Blood agar only
- B. Sabouraud agar
- C. MacConkey agar
- D. Chocolate agar only

Correct Answer

C. MacConkey agar

Rationale

MacConkey agar selects for Gram-negative bacilli and differentiates lactose fermentation.

Exam Trap

Do not pick the option that only matches one clue while ignoring the specimen context, QC issue, or bench workflow.

Key Review Point

MacConkey agar selects for Gram-negative bacilli and differentiates lactose fermentation.

Question 5

Which atmosphere is commonly needed for Campylobacter culture?

- A. Room air only
- B. Strictly anaerobic blood-free atmosphere only
- C. Microaerophilic atmosphere
- D. High oxygen hyperbaric chamber

Correct Answer

C. Microaerophilic atmosphere

Rationale

Campylobacter grows best under microaerophilic conditions.

Exam Trap

Do not pick the option that only matches one clue while ignoring the specimen context, QC issue, or bench workflow.

Key Review Point

Campylobacter grows best under microaerophilic conditions.

Question 6

Which test detects catalase enzyme activity?

- A. Red colour after oxidase reagent only
- B. Latex agglutination for antigen only
- C. Bubbling after hydrogen peroxide is added
- D. Black precipitate on HE agar

Correct Answer

C. Bubbling after hydrogen peroxide is added

Rationale

Catalase-positive organisms break down hydrogen peroxide and produce bubbles.

Exam Trap

Do not pick the option that only matches one clue while ignoring the specimen context, QC issue, or bench workflow.

Key Review Point

Catalase-positive organisms break down hydrogen peroxide and produce bubbles.

Review Mode: Transfusion Science

Correct Answer + Rationale + Exam Trap

Question 1

Which antigen system is most important in routine ABO grouping?

- A. A and B antigens on red cells
- B. Platelet antigens only
- C. K antigen only
- D. HLA antigens only

Correct Answer

A. A and B antigens on red cells

Rationale

ABO grouping is based on detecting A and B antigens on patient red cells and corresponding plasma antibodies.

Exam Trap

Do not pick the option that only matches one clue while ignoring the specimen context, QC issue, or bench workflow.

Key Review Point

ABO grouping is based on detecting A and B antigens on patient red cells and corresponding plasma antibodies.

Question 2

Which blood group has anti-A and anti-B in plasma?

- A. Group AB
- B. Group O
- C. Group A
- D. Group B

Correct Answer

B. Group O

Rationale

Group O red cells lack A and B antigens and plasma usually contains anti-A and anti-B.

Exam Trap

Do not pick the option that only matches one clue while ignoring the specimen context, QC issue, or bench workflow.

Key Review Point

Group O red cells lack A and B antigens and plasma usually contains anti-A and anti-B.

Question 3

Which component is most appropriate for increasing oxygen-carrying capacity?

- A. Cryoprecipitate
- B. Platelets
- C. Red blood cells
- D. Fresh frozen plasma only

Correct Answer

C. Red blood cells

Rationale

Red blood cells provide hemoglobin to improve oxygen-carrying capacity.

Exam Trap

Do not pick the option that only matches one clue while ignoring the specimen context, QC issue, or bench workflow.

Key Review Point

Red blood cells provide hemoglobin to improve oxygen-carrying capacity.

Question 4

Which component is used to treat thrombocytopenic bleeding?

- A. Albumin only
- B. Platelets
- C. Red cells
- D. Rh immune globulin

Correct Answer

B. Platelets

Rationale

Platelet components are used for bleeding or prophylaxis in significant thrombocytopenia according to policy.

Exam Trap

Do not pick the option that only matches one clue while ignoring the specimen context, QC issue, or bench workflow.

Key Review Point

Platelet components are used for bleeding or prophylaxis in significant thrombocytopenia according to policy.

Question 5

Which testing is included in a routine type and screen?

- A. ABO/Rh grouping and antibody screen
- B. Kleihauer test only
- C. DAT only
- D. Platelet count only

Correct Answer

A. ABO/Rh grouping and antibody screen

Rationale

A type and screen determines ABO/Rh and screens plasma for unexpected antibodies.

Exam Trap

Do not pick the option that only matches one clue while ignoring the specimen context, QC issue, or bench workflow.

Key Review Point

A type and screen determines ABO/Rh and screens plasma for unexpected antibodies.

Question 6

What does a positive antibody screen suggest?

- A. The patient has no antibodies
- B. Unexpected red cell antibody may be present
- C. Platelets are contaminated
- D. ABO group is always O

Correct Answer

B. Unexpected red cell antibody may be present

Rationale

A positive screen indicates possible clinically significant red cell antibody requiring investigation.

Exam Trap

Do not pick the option that only matches one clue while ignoring the specimen context, QC issue, or bench workflow.

Key Review Point

A positive screen indicates possible clinically significant red cell antibody requiring investigation.

Review Mode: Histotechnology/Histopathology

Correct Answer + Rationale + Exam Trap

Question 1

What is the primary purpose of fixation?

- A. Make tissue radioactive
- B. Create bacterial growth
- C. Preserve tissue morphology and prevent autolysis
- D. Remove all proteins

Correct Answer

C. Preserve tissue morphology and prevent autolysis

Rationale

Fixation preserves tissue architecture and minimizes degradation.

Exam Trap

Do not pick the option that only matches one clue while ignoring the specimen context, QC issue, or bench workflow.

Key Review Point

Fixation preserves tissue architecture and minimizes degradation.

Question 2

Which fixative is routinely used for many surgical pathology specimens?

- A. Distilled water
- B. 10% neutral buffered formalin
- C. Absolute xylene
- D. EDTA blood tube additive only

Correct Answer

B. 10% neutral buffered formalin

Rationale

10% neutral buffered formalin is a common routine tissue fixative.

Exam Trap

Do not pick the option that only matches one clue while ignoring the specimen context, QC issue, or bench workflow.

Key Review Point

10% neutral buffered formalin is a common routine tissue fixative.

Question 3

Which instrument is used to cut thin paraffin sections?

- A. Centrifuge
- B. Spectrophotometer
- C. Microtome
- D. Autoclave only

Correct Answer

C. Microtome

Rationale

A microtome cuts thin sections from paraffin blocks.

Exam Trap

Do not pick the option that only matches one clue while ignoring the specimen context, QC issue, or bench workflow.

Key Review Point

A microtome cuts thin sections from paraffin blocks.

Question 4

Which stain is routine for general tissue morphology?

- A. Hematoxylin and eosin
- B. India ink only
- C. Gram stain only
- D. Wright stain only

Correct Answer

A. Hematoxylin and eosin

Rationale

H&E is the routine stain for general histologic evaluation.

Exam Trap

Do not pick the option that only matches one clue while ignoring the specimen context, QC issue, or bench workflow.

Key Review Point

H&E is the routine stain for general histologic evaluation.

Question 5

What does hematoxylin primarily stain?

- A. Collagen black only
- B. Nuclei blue-purple
- C. Cytoplasm bright orange only
- D. Mucin red only

Correct Answer

B. Nuclei blue-purple

Rationale

Hematoxylin stains nuclear material blue-purple.

Exam Trap

Do not pick the option that only matches one clue while ignoring the specimen context, QC issue, or bench workflow.

Key Review Point

Hematoxylin stains nuclear material blue-purple.

Question 6

What does eosin primarily stain?

- A. Iron blue
- B. Bacteria only
- C. Nuclei black
- D. Cytoplasm and extracellular proteins pink

Correct Answer

D. Cytoplasm and extracellular proteins pink

Rationale

Eosin stains cytoplasm and many proteins pink.

Exam Trap

Do not pick the option that only matches one clue while ignoring the specimen context, QC issue, or bench workflow.

Key Review Point

Eosin stains cytoplasm and many proteins pink.