

01	A	B	C	D	E
02	A	B	C	D	E
03	A	B	C	D	E
04	A	B	C	D	E
05	A	B	C	D	E
06	A	B	C	D	E
07	A	B	C	D	E
08	A	B	C	D	E
09	A	B	C	D	E
10	A	B	C	D	E
11	A	B	C	D	E
12	A	B	C	D	E
13	A	B	C	D	E

14	A	B	C	D	E
15	A	B	C	D	E
16	A	B	C	D	E
17	A	B	C	D	E
18	A	B	C	D	E
19	A	B	C	D	E
20	A	B	C	D	E
21	A	B	C	D	E
22	A	B	C	D	E
23	A	B	C	D	E
24	A	B	C	D	E
25	A	B	C	D	E
26	A	B	C	D	E

27	A	B	C	D	E
28	A	B	C	D	E
29	A	B	C	D	E
30	A	B	C	D	E
31	A	B	C	D	E
32	A	B	C	D	E
33	A	B	C	D	E
34	A	B	C	D	E
35	A	B	C	D	E
36	A	B	C	D	E
37	A	B	C	D	E
38	A	B	C	D	E
39	A	B	C	D	E

PRACTICE QUESTIONS

Alberta Water and Wastewater Operator Certification Program

ERGLDT72

Alberta Wastewater Collection Operator Level 2

EDITION

Demo

QUESTIONS

9

FORMAT

Limited Edition PDF

Before you begin

What this is

9 practice questions for Alberta Water and Wastewater Operator Certification Program ERGLDT72, each with its answer key and an explanation. Answer a question before you read its key — the explanation is worth more once you have committed.

If something looks wrong

Send us three things and we will check it:

- the exam code, ERGLDT72
- the question number
- the email address on your order

Write to **support@mometrix.net**. We reply within one business day.

QUESTION 1

SINGLE CHOICE

In a conventional gravity wastewater collection system, which component is primarily responsible for controlling the elevation and grade at which sewage flows between manholes?

- ☐ A Drop manhole
- ☒ B Invert of the sewer pipe
- ☐ C Crown of the sewer pipe
- ☐ D Cleanout

ANSWER B

WHY The invert is the lowest interior surface of the pipe and is the reference point used to establish pipe slope and design elevations between manholes. The crown is the top interior surface; a drop manhole is used where there is a significant elevation change to prevent turbulence; a cleanout provides access for clearing blockages.

QUESTION 2

SINGLE CHOICE

A sewer pipe is described as having a grade of 0.5%. Which of the following best describes what this means?

- ☐ A The pipe rises 0.5 m for every 100 m of horizontal distance
- ☒ B The pipe drops 0.5 m for every 100 m of horizontal distance
- ☐ C The pipe diameter increases by 0.5% over its length
- ☐ D The pipe capacity decreases by 0.5% over its length

ANSWER B

WHY A grade (or slope) of 0.5% means the pipe falls (drops) 0.5 metres vertically for every 100 metres of horizontal run. Minimum self-cleansing velocities in gravity sewers are typically achieved by designing adequate grades.

QUESTION 3

SINGLE CHOICE

Which of the following is the most common operational problem caused by air becoming trapped at high points in a wastewater force main?

- ☐ A Pipe corrosion
- ☒ B Reduced pumping capacity and increased energy use
- ☐ C Excessive infiltration
- ☐ D Septicity in upstream gravity sewers

ANSWER B

WHY Trapped air at high points in a force main reduces the effective cross-sectional area of the pipe, increases head loss, and reduces pumping efficiency. Air-release valves are installed at high points to vent accumulated air and maintain flow capacity.

QUESTION 4

SINGLE CHOICE

An operator notes that a submersible lift-station pump is short-cycling (starting and stopping frequently). Which of the following is the most likely cause?

- ☒ A A leaking check valve allowing backflow
- ☐ B An undersized wet well
- ☐ C A properly functioning level-control system with normal inflow
- ☐ D A plugged pump intake

ANSWER A

WHY Short cycling is most often caused by a leaking check valve that allows pumped sewage to flow back into the wet well, causing the level to rise and the pump to restart. Backflow through a faulty check valve is one of the most common causes of short cycling in lift stations.

QUESTION 5

SINGLE CHOICE

Which pipe material is most commonly used for new residential gravity sewer laterals in Alberta due to its corrosion resistance, light weight, and ease of installation?

- ☐ A Vitrified clay
- ☒ B Polyvinyl chloride (PVC)
- ☐ C Cast iron
- ☐ D Concrete cylinder

ANSWER B

WHY PVC is the standard material for new residential gravity sewer laterals because it is lightweight, corrosion-resistant, and easy to install. Vitrified clay is older and more brittle; cast iron is used for pressure applications or where extra strength is needed; concrete cylinder pipe is generally used for larger trunk sewers.

QUESTION 6

SINGLE CHOICE

During a closed-circuit television (CCTV) inspection of a gravity sewer, the operator observes water entering the pipe through the wall at the springline, with no visible corresponding defect at that point. What does this most likely indicate?

- ☒ A Infiltration through a defective joint or crack
- ☐ B A siphon effect from the downstream manhole
- ☐ C Condensation on the pipe wall
- ☐ D Normal groundwater discharge at a designed infiltration point

ANSWER A

WHY Water actively entering the pipe through the wall at the springline indicates infiltration, typically through a defective joint, crack, or service connection. Sewers are designed to be watertight, so any visible infiltration is a defect that should be recorded and assessed for rehabilitation.

QUESTION 7 SINGLE CHOICE

What is the primary purpose of a check (non-return) valve on a wastewater force main discharge?

- ☐ A To throttle flow and reduce pump discharge pressure
- ☒ B To prevent reverse flow and water hammer when the pump stops
- ☐ C To isolate the pump from the force main for maintenance
- ☐ D To vent trapped air from the force main

ANSWER B

WHY A check valve allows flow in only one direction. Its primary purpose on a force main is to prevent reverse flow when the pump stops, which protects the pump from back-spinning and helps reduce water hammer. Isolation valves are used for maintenance; air-release valves vent trapped air.

QUESTION 8 SINGLE CHOICE

A collection system operator is performing manhole inspection. Which of the following observations is most indicative of a serious structural problem requiring immediate attention?

- ☐ A Minor mortar loss in the bench area
- ☐ B Slight discoloration of the interior concrete
- ☒ C Visible voids in the backfill material outside the manhole wall and a misaligned frame
- ☐ D Light surface staining on the steps

ANSWER C

WHY Voids in the backfill combined with a misaligned frame suggest soil has migrated into the manhole or surrounding ground has subsided, indicating a potential collapse hazard. The other observations are cosmetic or minor maintenance items rather than urgent structural concerns.

QUESTION 9

MULTIPLE CHOICE

A wet well at a lift station is producing hydrogen sulfide (H₂S) odours. Which of the following are appropriate operational responses? (Choose two.)

- ☒ **A** Increase the frequency of pump cycling to reduce wet well residence time
- ☐ **B** Reduce ventilation to keep fumes concentrated for easier detection
- ☐ **C** Add a chemical such as ferrous chloride or sodium hydroxide to the wet well to control sulphide formation
- ☒ **D** Clean accumulated grease and debris from the wet well and improve ventilation

ANSWER A - D

WHY Increasing pump cycling reduces the retention time of sewage in the wet well, which limits the anaerobic conditions that produce H₂S. Cleaning the wet well removes the slime layer where sulphide-generating bacteria thrive, and improved ventilation disperses any H₂S that is produced. Reducing ventilation would worsen the hazard, and chemical addition at uncontrolled doses is not an appropriate first-line operational response.