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39	A	B	C	D	E

PRACTICE QUESTIONS

Technical Standards and Safety Authority (TSSA)

EDM-B

Elevating Device Mechanic Class B

EDITION

Demo

QUESTIONS

9

FORMAT

Limited Edition PDF

Before you begin

What this is

9 practice questions for Technical Standards and Safety Authority (TSSA) EDM-B , 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, EDM-B
- the question number
- the email address on your order

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

QUESTION 1

MULTIPLE CHOICE

A hydraulic elevating device is being inspected. Which of the following components are typically found in the hydraulic power unit (HPU) of a typical hydraulic elevator? (Choose two.)

- ☒ **A** Motor
- ☐ **B** Counterweight
- ☒ **C** Pump
- ☐ **D** Compensation chain
- ☐ **E** Door operator
- ☐ **F** Governor sheave

ANSWER **A - C**

WHY The hydraulic power unit (HPU) contains the electric motor and the hydraulic pump that pressurizes the fluid to lift the car. Counterweights, compensation chains, door operators, and governor sheaves are traction-elevator components and are not part of a typical hydraulic elevator's HPU.

QUESTION 2

MULTIPLE CHOICE

Which of the following are required safety devices typically found on an electric traction elevator? (Choose two.)

- ☒ **A** Car safety (rope-grab type)
- ☒ **B** Governor
- ☐ **C** Slack rope device
- ☐ **D** Hydraulic cylinder
- ☐ **E** Machine beam
- ☐ **F** Buffer for a 2:1 roped hydraulic elevator

ANSWER A - B

WHY The car safety and the governor form the car-safety system required on electric traction elevators: the governor triggers the safeties when overspeed is detected. A slack rope device is a traction-related device but is not one of the two core safeties asked about; hydraulic cylinder, machine beam and the specific buffer for a 2:1 roped hydraulic arrangement are not the standard traction safety pair.

QUESTION 3

SINGLE CHOICE

Under Ontario's Elevating Devices Regulation (O. Reg. 209/01, as amended) and the adopted ASME A17.1/CSA B44 code, who is responsible for ensuring that an elevating device is maintained in safe operating condition between inspections?

- ☐ **A** The TSSA inspector
- ☒ **B** The owner of the device
- ☐ **C** The elevator contractor of record only
- ☐ **D** The Director of Design Compliance

ANSWER B

WHY The owner of the elevating device is legally responsible for ensuring that the device is maintained in safe operating condition. While the contractor performs maintenance and the inspector performs periodic inspections, the duty to keep the device safe between inspections rests with the owner.

QUESTION 4 SINGLE CHOICE

On a geared traction elevator, which component transmits power from the motor to the traction sheave?

- ☐ A The deflector sheave
- ☐ B The governor
- ☒ C The gear reducer
- ☐ D The counterweight buffer

ANSWER C

WHY In a geared traction machine, the gear reducer (worm-gear or helical type) reduces the motor's high rotational speed to the slower speed required to drive the traction sheave. The deflector sheave routes ropes, the governor is a safety device, and the counterweight buffer absorbs impact at the bottom of the hoistway.

QUESTION 5 SINGLE CHOICE

Before a mechanic begins work in the pit of an elevating device, what must be verified according to safe work practices?

- ☐ A That the cab is positioned at the bottom landing with doors closed
- ☒ B That the stop switch in the pit is accessible and functional, and the car is supported on safe support/buffer where required
- ☐ C That the fire alarm panel is in test mode
- ☐ D That the building's main electrical disconnect is locked open

ANSWER B

WHY Working in the pit requires the pit stop switch to be accessible and operable and the car to be properly supported (for example, on safety jacks or the buffers) to prevent unexpected movement. The other options describe unrelated or excessive steps not required as part of pit-entry safe work practice.

QUESTION 6

SINGLE CHOICE

What is the primary function of a counterweight safety on a traction elevator?

- ☒ **A** To stop the counterweight in the event of an overspeed condition in the down direction
- ☐ **B** To keep the counterweight ropes tensioned
- ☐ **C** To limit counterweight travel at the top terminal landing
- ☐ **D** To act as the main counterweight buffer at the pit

ANSWER A

WHY A counterweight safety is a mechanically actuated device that engages the counterweight guide rails to stop and hold the counterweight during an overspeed-in-the-down-direction event. Buffering is performed by the counterweight buffer; rope tensioning is the role of the compensating means.

QUESTION 7

SINGLE CHOICE

On an elevator controller, an 'up normal limit' switch is designed to:

- ☐ **A** Stop the elevator at the top landing under normal operating conditions
- ☒ **B** Open the circuit if the car travels beyond the top landing at normal speed, preventing further upward motion
- ☐ **C** Act as the final emergency stopping device in the hoistway
- ☐ **D** Provide power to the cab lighting when on automatic operation

ANSWER B

WHY The up normal limit (also called the up normal terminal stopping device) opens the safety circuit if the car travels past the top landing at normal speed, halting upward motion. The ultimate safety stop further up the hoistway is performed by the final limit switch, and the car-safety/buffer system is the last line of protection.

QUESTION 8

SINGLE CHOICE

A 'selective collective' automatic operation of an elevator means that:

- ☒ **A** The car answers hall calls only in the direction it is currently travelling and reverses at the terminal landings to answer calls in the opposite direction
- ☐ **B** All hall calls are answered regardless of direction
- ☐ **C** The car only responds to car calls, not hall calls
- ☐ **D** The car is operated by an attendant using a lever

ANSWER A

WHY Selective collective operation means the car answers hall calls selectively — only those in the direction of travel — and reverses at the terminals to service calls in the opposite direction. Single (non-selective) collective answers all calls on the way up and then on the way down regardless of direction.

QUESTION 9

SINGLE CHOICE

After completing a maintenance task that requires the car safeties to be manually applied, the mechanic must verify that the safeties have been correctly released before returning the device to service. What is the proper verification?

- ☒ **A** Visually confirm the safety wedges have retracted from the rails and run the car through a full bottom-to-top test run with normal and final limits observed
- ☐ **B** Reset the governor and assume the safeties will release automatically
- ☐ **C** Cycle the doors several times and confirm they close fully
- ☐ **D** Reset only the controller and resume normal service

ANSWER A

WHY Safeties that have been applied must be confirmed released by visually checking that the safety rollers/wedges are clear of the guide rails, and the car should be run through a complete test to confirm normal operation of limits and the safety circuit before placing the device back in service.