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39	A	B	C	D	E

PRACTICE QUESTIONS

Saudi Commission For Health Specialties (SCFHS)

ORPRT

Orthotics and Prosthetics Technician

EDITION

Demo

QUESTIONS

9

FORMAT

Limited Edition PDF

Before you begin

What this is

9 practice questions for Saudi Commission For Health Specialties (SCFHS) ORPRT , 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, ORPRT
- 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 patient presents with foot drop secondary to common peroneal nerve palsy. Which orthotic design features are most appropriate to address the sagittal-plane deficit during swing phase? (Choose two.)

- ☒ **A Rigid posterior leaf spring design with trimlines terminating at the metatarsal heads**
- ☐ **B Solid ankle cushion heel (SACH) modification integrated into a University of California Berkeley Laboratory (UCBL) shell**
- ☒ **C Dorsiflexion assist ankle-foot orthosis (AFO) with a flexible posterior strut**
- ☐ **D Patellar tendon-bearing (PTB) supracondylar suspension with ischial seat**
- ☐ **E Ground-reaction, floor-reaction AFO set in 5 degrees of dorsiflexion**

ANSWER A - C

WHY Foot drop from common peroneal nerve palsy is a sagittal-plane swing-phase deficit. A posterior leaf spring AFO (A) and a dorsiflexion-assist AFO with a flexible posterior strut (C) both provide the dorsiflexion assistance needed to clear the toe during swing. A SACH/UCBL combination addresses hindfoot alignment but not swing-phase drop foot; a PTB supracondylar socket with ischial seat is a knee-ankle design for femoral/tibial weight-bearing relief; and a ground-reaction AFO in dorsiflexion is used for crouch gait, not foot drop.

QUESTION 2

MULTIPLE CHOICE

During the dynamic alignment of a transtibial prosthesis, the technician observes lateral whip of the prosthetic heel at terminal stance. Which two adjustments are most appropriate to correct this gait deviation? (Choose two.)

- ☒ **A** Externally rotate the socket on the foot
- ☐ **B** Internally rotate the foot relative to the socket
- ☐ **C** Move the socket posteriorly over the foot
- ☐ **D** Plantarflex the foot (increase the keel wedge dorsally)
- ☒ **E** Move the foot inset (medial shift) relative to the socket

ANSWER **A - E**

WHY Lateral heel whip at terminal stance is typically caused by excessive external rotation of the knee-axis-to-foot relationship. Externally rotating the socket relative to the foot (A) and shifting the foot medially (inset) relative to the socket (E) both reduce the effective external rotation of the foot and therefore reduce lateral whip. Internally rotating the foot would worsen external rotation of the socket-to-foot relationship; moving the socket posteriorly affects sagittal alignment; and plantarflexing the foot is a sagittal-plane adjustment unrelated to transverse-plane whip.

QUESTION 3

SINGLE CHOICE

Which thermoplastic material is most appropriate for a rigid, custom-molded posterior shell ankle-foot orthosis (AFO) intended for an adult patient with moderate spasticity?

- ☐ A Low-density polyethylene (LDPE) 3 mm
- ☒ B Polypropylene (PP) 4–5 mm
- ☐ C Plastazote (closed-cell polyethylene foam) 6 mm
- ☐ D Thermoplastic rubber (TPR) 2 mm

ANSWER B

WHY A rigid AFO shell that must resist moderate spastic forces is typically vacuum-formed from polypropylene 4–5 mm, which provides the stiffness, durability, and creep resistance required for an adult spastic patient. LDPE is too flexible, Plastazote is a foam liner (not a structural shell), and TPR lacks the rigidity needed for definitive AFO control.

QUESTION 4

SINGLE CHOICE

A patient with a long transhumeral amputation requires a body-powered prosthesis. Which harness configuration provides the most efficient control of an elbow-lock cable combined with a terminal-device cable?

- ☐ A Figure-eight (figure-9) harness with a single control cable to the terminal device only
- ☒ B Triple-control (Y-strap) figure-eight harness with dual cables routed to the elbow lock and terminal device
- ☐ C Chest-strap-only harness with no shoulder saddle
- ☐ D Shoulder saddle and a single elastic suspension cable

ANSWER B

WHY For a transhumeral body-powered prosthesis requiring both elbow lock and terminal-device control, a figure-eight harness with a Y-strap (triple-control) configuration is required so that one cable controls the elbow lock and the other controls the terminal device. A single-cable figure-eight cannot independently operate both functions; a chest-strap-only harness lacks the shoulder flexion moment arm to generate sufficient cable excursion; and an elastic-only suspension cannot transmit the forces needed to operate dual cables.

QUESTION 5

SINGLE CHOICE

When donning a transtibial prosthesis using a gel liner with a pin-locking suspension system, what is the correct sequence of actions?

- ☒ **A** Apply liner, expel air by rolling onto skin, insert residual limb with pin aligned to socket lock, stand and verify full latch engagement
- ☐ **B** Insert residual limb directly into the socket without a liner, then attach the pin externally
- ☐ **C** Wet the liner, apply petroleum jelly to the pin, and pull the pin through the lock
- ☐ **D** Apply liner, sit immediately, and push down without checking for air pockets

ANSWER A

WHY The proper donning sequence for a pin-locking transtibial prosthesis is to apply the gel liner (rolling it on to avoid trapping air), align the pin with the lock housing inside the socket, and then stand so that body weight and proper limb position allow the pin to fully engage the lock. Skipping the liner or using petroleum jelly on the pin is incorrect, and standing without verifying engagement risks a sudden disconnect.

QUESTION 6

SINGLE CHOICE

A patient is being fitted with a lumbosacral orthosis (LSO) for mechanical low-back pain. Which design feature is most consistent with a chairback (Knight) LSO rather than a Corset-style LSO?

- ☐ **A** Rigid posterior thoracic extension to T6
- ☒ **B** Molded pelvic band with paraspinal uprights and lateral thoracic extensions
- ☐ **C** Full anterior and posterior thermoplastic shell encompassing the torso
- ☐ **D** Single occipital and chin piece with sternal pad

ANSWER B

WHY The chairback (Knight) LSO is characterized by a molded pelvic band (or pad) with two paraspinal uprights and lateral thoracic extensions, providing three-point control of the lumbar spine without circumferential enclosure. A rigid posterior thoracic extension to T6 describes a Thoracolumbosacral Orthosis (TLSO); a full anterior/posterior shell describes a custom-molded body jacket (Boston/Shriners-type TLSO or custom LSO); and occipital/chin/sternal components are features of a cervical orthosis (e.g., Minerva or halo vest).

QUESTION 7

SINGLE CHOICE

During cast correction for a custom foot orthosis (CFO), a forefoot valgus deformity of 8 degrees is identified. How should the positive model be posted to accommodate this deformity?

- ☐ A Apply a 8-degree varus rearfoot post and leave the forefoot unmodified
- ☐ B Apply a 8-degree valgus rearfoot post to balance the forefoot
- ☒ C Apply a 8-degree varus forefoot post (intrinsic forefoot correction) and a balanced rearfoot post
- ☐ D No posting is required because the rearfoot will naturally compensate

ANSWER C

WHY A fixed forefoot valgus is a structural osseous deformity that must be intrinsically corrected on the positive model with a varus forefoot post equal to the deformity, paired with a balanced (perpendicular) rearfoot post. Posting only the rearfoot in varus or valgus without addressing the structural forefoot deformity fails to align the sagittal and frontal planes; leaving the model unposted forces abnormal rearfoot compensation and risk of injury.

QUESTION 8

SINGLE CHOICE

Which infection-control practice is most appropriate when handling a prosthetic socket that has been worn by a patient with a known methicillin-resistant *Staphylococcus aureus* (MRSA) skin colonization of the residual limb?

- ☐ A Wipe the socket interior with isopropyl alcohol between visits and reuse without further protection
- ☒ B Use standard precautions: gloves during socket contact, surface disinfection with an EPA-registered intermediate-level disinfectant, and hand hygiene before and after handling
- ☐ C Dispose of the socket after every clinical encounter
- ☐ D No special precautions are required because MRSA is not transmitted via inanimate surfaces

ANSWER B

WHY Standard precautions (hand hygiene and gloves when contacting potentially contaminated materials, plus EPA-registered intermediate-level disinfection of surfaces) are the appropriate response; MRSA can survive on inanimate surfaces such as socket interiors and may contribute to cross-transmission. Isopropyl alcohol alone is insufficient as a primary disinfectant for organic contamination; disposing of a definitive custom socket after every visit is wasteful and unnecessary; and ignoring the risk violates infection-control standards.

QUESTION 9

SINGLE CHOICE

A K3-level ambulator with a unilateral transfemoral amputation who walks long community distances would most benefit from which prosthetic knee and foot combination?

- ☐ A Single-axis constant-friction knee with a SACH foot
- ☒ B Polycentric (4-bar) stance-phase hydraulic knee with a dynamic-response (energy-storing) carbon-fiber foot
- ☐ C Manual-locking knee with a single-axis articulating foot
- ☐ D Microprocessor-controlled hydraulic knee with a solid-ankle cushion heel (SACH) foot

ANSWER B

WHY A community/active K3 ambulator with a transfemoral amputation typically benefits from a stance-phase hydraulic or microprocessor-style knee that provides stumble recovery and cadence-responsive swing control, paired with a dynamic-response energy-storing foot (e.g., carbon-fiber) suitable for longer walking distances and variable cadence. A constant-friction knee with SACH foot is appropriate for lower-activity K1–K2 ambulators; a manual-locking knee is reserved for very limited ambulators or unstable knees; and pairing a high-end microprocessor knee with a basic SACH foot mismatches component performance levels.