

# BOA BCC SYLLABUS FOR EXAMINATION

## EXAMINATION

The examination consists of two parts:

1. Oral - 15 minutes
2. Practical - 10 mins prep - 40 minutes examination – documentation time (not limited)

**\*\*There will be examiners, moderators & observers present throughout the exam\*\***

## RELEVANT ELEMENTARY ANATOMY AND PHYSIOLOGY

### LOCOMOTOR SYSTEM

- Basic knowledge of the skeleton: nomenclature & major joint movements.
- Details of bones and surface anatomy of the upper and lower limbs.
- The vertebral column, bony structures, normal curves, and intervertebral discs.
- Joints: basic details of the upper and lower limb joints.
- Muscular system: main groups of muscles moving the limbs.
- Nervous system: spinal cord in brief, positions of nerves relevant to casting work.
- Circulatory system: main blood vessels of the limbs.

### TRAUMA

- Fractures: types, healing, and complications.
- Description, treatment, and any specific complications of trauma to:
  - Wrist and hand
  - Forearm
  - Elbow
  - Humerus
  - Clavicle and shoulder
  - Foot and ankle
  - Tibia and fibula
  - Knee
  - Femur
- Awareness of complications and handling of patients with these injuries:
- Trauma to the Pelvis and Spine

### ORTHOPAEDICS

- Brief description of each condition and treatment, especially those where casting is involved:
  - Bone infections: osteomyelitis/tuberculosis
  - Congenital talipes equino varus
  - Developmental dysplasia of the hip
  - Foot conditions, e.g. hallux valgus
  - Knee conditions
  - Osteoarthritis and Rheumatoid disease
  - Osteochondritis e.g. Perthes disease
  - Osteoporosis

**BANDAGING:** Techniques of bandaging and the use of slings, collar n cuff

**WALKING AIDS:** Basic principles and instructions

### CASTING ROOM ISSUES

- Health & safety

### MEDICO LEGAL:

- Record keeping / documentation
- Informed consent
- Ethical matters

## CASTING TECHNIQUES

- Assessment of patient including relevant history
- Basic casting technique
- Use of apparatus in the casting room
- Care of patients in casts:
  - Trimming, drying, and windowing
  - Checking of patients in casts
  - Verbal and written advice given to patients
  - Communications skills
  - Complications of cast fixation, prevention, detection, and treatment
- Walking attachments for leg casts
- Removal of casts and subsequent care

## SPECIFIC CASTS

### Appropriate use of materials including plaster of Paris and alternative casting materials.

- Understanding of how to use and create:
  - Soft products and combi cast techniques.
  - Producing the correct layers of resin-based materials and using products making use of their properties
- Positions, extent of cast and basic technique of:

Plaster of Paris		Lightweight resin-based materials	
<b>Casts:</b> <ul style="list-style-type: none"> <li>• Below Elbow</li> <li>• Bennett's type</li> <li>• Above elbow</li> <li>• Below knee</li> <li>• Above knee</li> <li>• Casts for clubfoot</li> </ul>	<b>Slabs:</b> <ul style="list-style-type: none"> <li>• Volar slab</li> <li>• Below elbow</li> <li>• Above elbow</li> <li>• Below knee</li> <li>• 'U' Slab</li> </ul>	<ul style="list-style-type: none"> <li>• Below elbow</li> <li>• Below elbow (FRC or Soft combi cast)</li> <li>• Thumb Spica</li> <li>• Scaphoid</li> <li>• Arm cylinder</li> <li>• Above elbow</li> </ul>	<ul style="list-style-type: none"> <li>• Slipper</li> <li>• Below knee</li> <li>• Leg cylinder</li> <li>• Above knee</li> <li>• Sarmiento type</li> </ul>

- Should have applied these casts on the course and understand the principles.
- Should be able to discuss care and troubleshoot any problems
  - Corset/jacket
  - Frog type
  - Shoulder spica
  - Hip Spica
  - Broomstick
  - Minerva jacket (demonstration only)
  - Functional Bracing: Humerus, Femur & Tibia
  - Resting Splints for Limbs
  - Negative Casting
- Understand the principles of orthopaedic bracing and be aware of the following applications:
  - Futura wrist brace
  - Humeral brace
  - Range of movement knee braces
  - Tri-panel knee splint
  - Walking boots

## ADDENDUM TO SYLLABUS

During the practical part of the examination, candidates may be required to apply casts in Plaster of Paris and one of the following resin based materials:

BSN - Deltacast Conformable, Elite or Soft  
 3M - Scotchcast Premium, Poly Premium or Soft cast  
 Benecare - Benecast Select, Advanced or Flex

(the fiberglass products from each company will also be available for use with the soft products)

**\*It is therefore essential for candidates to familiarise themselves with all these products\***