#### लोक सेवा आयोग

नेपाल स्वास्थ्य सेवा, सर्जरी समूह, अर्थोप्लाष्टी तथा रिकन्स्ट्रक्शन सर्जरी उपसमूह, नवौं (९) तह, कन्सल्टेन्ट अर्थोप्लाष्टी तथा रिकन्स्ट्रक्शन सर्जन पदको खुला र आन्तरिक प्रतियोगितात्मक परीक्षाको पाठ्यक्रम

## Paper II - Technical Subject

### 1. Hip Joint

- 1.1. Anatomy and biomechanics of hip joint.
- 1.2. Clinical examination of hip joint.
- 1.3. Natural History, clinical presentation, classification and treatment of adult hip dysplasia.
- 1.4. Management of femoro-acetabular Impingement.
- 1.5. Occurrence, etiology, clinical presentation, imaging, staging and treatment of osteonecrosis of Femoral head.
- 1.6. Transient osteoporosis of the Hip.
- 1.7. Management of hip arthritis.
- 1.8. Biomechanics, indications, contraindications, pre-operative Planning, templating, techniques, surgical Approaches, soft tissue handling, rehabilitation and outcomes of total hip arthroplasty.
- 1.9. Total hip arthroplasty implants: composition, choices, biomechanics, merits and demerits.
- 1.10. Bone cement.
- 1.11. Polyethylene wear, composition, manufacturing and osteolysis in THA.
- 1.12. Peri-prosthetic fractures in THA.
- 1.13. Biomechanics, techniques, advantages, contraindications and complications of Hip resurfacing arthroplasty
- 1.14. Complications after THA; Pre-operative, Intraoperative and post-operative complications: dislocation, neurovascular injury, infections and osteolysis, thromboembolism, limb length discrepancy, peri-prosthetic fractures, heterotopic ossifications and impingements.
- 1.15. THA in special cases: DDH, sickle cell anemia, protusio acetabuli, paget's disease, acute femoral neck fracture, failed hip surgeries, acetabular fractures, arthrodesis of hip joint, chronic renal failure, hemophilia, tuberculosis, pyogenic arthritis and neuromuscular disorders.
- 1.16. Principles, techniques of Revision THA.
- 1.17. Current concepts in Total Hip Arthroplasty.

#### 2. Knee Joint

- 2.1. Clinical presentation, imaging studies and treatment of knee osteoarthritis
- 2.2. Clinical examinations of knee joint
- 2.3. Surgical anatomy and biomechanics of knee joint
- 2.4. Modern prosthesis evolution and different designs: cruciate retaining, cruciate sacrificing, posterior stabilized, mobile bearing, uni-compartmental, Anterior stabilized, modular, constraint design and hinged.

#### लोक सेवा आयोग

# नेपाल स्वास्थ्य सेवा, सर्जरी समूह, अर्थोप्लाष्टी तथा रिकन्स्ट्रक्शन सर्जरी उपसमूह, नवौं (९) तह, कन्सल्टेन्ट अर्थोप्लाष्टी तथा रिकन्स्ट्रक्शन सर्जन पदको खुला र आन्तरिक प्रतियोगितात्मक परीक्षाको पाठ्यक्रम

- 2.5. Biomechanics, indications, contraindications, pre-operative planning, templating, surgical approaches, soft tissue balancing, rehabilitation, complications and outcomes of total knee arthroplasty.
- 2.6. Polyethylene issues in TKA.
- 2.7. Indications and contraindications for total knee arthroplasty, unicondylar knee arthroplasty and patella-femoral arthroplasty.
- 2.8. Patellar resurfacing arthroplasty and simultaneous bilateral total knee arthroplasty.
- 2.9. Management of bone deficiency in TKA.
- 2.10. Patello-femoral tracking after TKA.
- 2.11. Wound closure after TKA.
- 2.12. Pre-operative, Intra-operative and Postoperative management after TKA.
- 2.13. Surgical problems in specific disorders: previous high tibial osteotomy, previous patellectomy, neuropathic arthropathy and other medical conditions.
- 2.14. Complications after TKA: Thromboembolism, Infection, Patellofemoral complications, neurovascular complications and periprosthetic fractures
- 2.15. Revision total knee arthroplasty: Aseptic failure of primary total knee arthroplasty, surgical exposures, component removal, reconstruction principles, results.
- 2.16. Current concepts in total knee arthroplasty

#### 3. Other Joints and miscellaneous

- 3.1. Indications, requirements, component positioning, complications after shoulder hemiarthroplasty, total shoulder arthroplasty and reverse shoulder arthroplasty
- 3.2. General principles of arthroplasty of wrist joint, elbow joint, ankle joints and small joints of hands and feet..
- 3.3. Indications, contraindications, general principles, techniques and complications after arthrodesis of hip, knee, shoulder, elbow, wrist, ankle, small joints of hands and feet.
- 3.4. Soft tissue procedures and corrective osteotomies around knee joints.
- 3.5. Ligaments and soft tissue reconstruction for instabilities of different joints: shoulder, elbow wrist, hip, knee ankle and other small joints.
- 3.6. Bony and soft tissue reconstruction in special conditions: Cerebral palsy, poliomyelitis, brachial plexus injury, myelo-meningocele, other congenital and acquired disorders.