Contents

Section 1: Hip Arthroplasty

1. Applied Anatomy **3**
- Hip Joint *3*

2. History and Biomechanics of Hip Arthroplasty **6**
- Biomechanics *9*

3. Implants and Bone Cements **14**
- Femoral Component *14*
- Acetabular Component *19*
- Ceramic on Ceramic Hips *21*
- Metal-on-metal Total Hip Arthroplasty *22*
- Hip Resurfacing vs Conventional THR *24*
- Bone Cements *24*

4. Radiographic Evaluation in Total Hip Arthroplasty **28**
- Preoperative Radiological Evaluation *28*
- Radiographs *28*
- Acetabular Conditions, Precautions and Problem Faced *28*
- Femoral Conditions, Precautions and Problems Faced *31*
- CT Scan *34*
- Magnetic Resonance Imaging *35*
- Bone Scan 35
- How to Read Postoperative X-Ray? *35*
- Follow-up Radiographs *38*
- Aseptic Loosening of Cup *38*

5. Surgical Approaches and Indications of Hip Arthroplasty **41**
- Conventional Surgical Approach *41*

6. Perioperative Management of Total Hip Arthroplasty **50**
- Preoperative Clinical Evaluation *50*
- Postoperative Clinical Management *51*

7. Primary Total Hip Arthroplasty **54**
- Neck Cut *54*
- Exposure of Acetabulum *54*

- Acetabular Reaming *58*
- Femur Preparation *58*
- Impingement *67*
- Wound Closure *70*

8. Complex Primary Total Hip Replacement 71
- Total Hip Replacement in Protrusio Hip *71*
- Total Hip Replacement in Ankylosed Hip *73*
- Dysplastic Hip *76*

9. Complications of Total Hip Arthroplasty 79
- Hematoma Formation *79*
- Mortality *79*
- Thromboembolism *80*
- Vascular Injury *81*
- Limb Length Discrepancy *81*
- Instability (Dislocation and Subluxation) *81*

Section 2: Knee Arthroplasty

10. Applied Anatomy of Knee Joint 85
- Knee Joint *85*

11. History and Biomechanics of Knee Arthroplasty 90
- Biomechanics of Normal Joint and a Prosthetic Joint *91*

12. Implants and Patient Selection 94
- Osteoarthritis of Knee Joint *94*
- Treatment *95*
- Cruciate Retaining vs Cruciate Substituting *96*
- High Flex Design *98*
- Fixed vs Mobile Knee *99*
- Gender Knees *99*
- Cemented vs Noncemented *100*
- All Polyethylene vs Metal Backed Tibia *101*
- Routine vs Judicious use of Anticoagulant Prophylaxis *102*
- Patellar Resurfacing *103*
- Extension Rods *106*
- Hinged Implants *106*
- Various Conditions and Implant Selection *106*

13. Perioperative Management of Total Knee Arthroplasty **111**
- Preoperative Clinical Evaluation *111*
- Postoperative Clinical Management *113*

14. Surgical Approaches and Technique of Primary Total Knee Arthroplasty **116**
- Surgical Approaches *116*
- Tips of Patellar Eversion 123
- Bone Cuts *123*
- Tibial Cut *123*
- Common Mistakes and their Causes *140*
- Criteria for Equalizing Flexion and Extension Gaps and Bone Cuts *145*

15. Complex Primary Total Knee Arthroplasty **146**
- Varus Knee *146*
- Valgus Knee *147*
- Fixed Flexion Deformity of Knee *148*

16. Complications of Total Knee Arthroplasty **153**
- Complications after Total Knee Replacement *153*

Index *157*

DVD Contents

1. Total Hip Replacement
2. Total Knee Replacement