

# SYLLABUS OF M.S. ORTHOPAEDICS (AS PER MUHS, NASHIK)

## **Syllabus:**

- 1) Basic sciences related to locomotor system.
  - 1) Development, histology of bone, cartilage, collagen, muscles and nerve.
  - 2) Physiology of bone, cartilage, muscle & nerve.
- 2) Surgical pathology related to bones, cartilage, muscle, collagen & nerve in various congenital affections, infections, tumors and tumorous conditions and metabolic affections.
- 3) Orthopaedic diseases
  - Metabolic bone disease
  - Bone infections – Acute and Chronic
  - Congenital deformities and development conditions of upper extremity, lower extremity, spine and general defects.
  - Diseases of joints
  - Tumors of Bones
  - Orthopaedic Neurology including Spina bifida, Poliomyelitis and Cerebral palsy.
  - Diseases of muscle, fibrous tissue and vessels
  - Regional orthopaedic conditions related to neck, shoulder, elbow, wrist, hand, hip, knee, ankle, foot, back and pelvis.
  - Special subject – Orthopaedic Radiology, Amputation and Disarticulation, physiotherapy and rehabilitation

Recent advances in orthopaedic diseases.

- 4) General principles of Surgery and Traumatology.
  - Wound healing
  - Fracture healing
  - Rehabilitation after bone and joint injuries
  - Systematic response to injury
  - Acute trauma care and early management of injured
  - Injury to head, face, chest, abdomen, vessels & nerves.
  - Polytrauma
  - Fracture & dislocations in all bones and joints including diagnosis, classifications, various modalities of investigation and operative non-operative treatment including complications.
  - Fractures in children
  - Pathological fractures
  - Recent Advance in various fractures and management of complications
- 5) Exposure to surgical techniques & surgical approaches to various regions to manage common infection, tumor, joint diseases, different type of trauma, congenital, neurological and miscellaneous conditions.
- 6) Principles of Arthroscopy, Microsurgery & Arthroplasty.

- 7) Orthotics & Prosthetics, disability calculation, Bio-mechanics of gait, splints.
- 8) Thesis – Aim is to train the PG student in research work. Topics should be in experimental, clinical, retrospective analysis or combination such that students are encouraged to do exhaustive reference work. Topics should be relevant to subject and region of work. Topics should be allotted within first three months of training. The candidate should complete review of literature by end of the first year and submit his completed thesis six months before the final examination. Subject of thesis should be approved by university within first six months.
- 9) Under Graduate teaching in clinical methods.
- 10) Seminar presentation on common topics.
- 11) Journal reading and discussion.
- 12) Case presentation, ward record maintenance.
- 13) Adequate experience in closed reduction of various fractures, assisting major operation, independent operative management of common orthopaedic condition.
- 14) Preparation of paper for presentation in conference.
- 15) Preparation of article for publication.

### EXAMINATION SCHEME FOR M.S. (ORTHO)

Theory Exam. Total four papers, each of three hours duration and carrying 100 marks each.

Total = 400 Marks.

Paper I	-	Basic and Applied Sciences as related to Orthopaedics
Paper II	-	Orthopaedics Traumatology
Paper III	-	Orthopaedic Diseases
Paper IV	-	Recent Advances –

Each paper will have two questions of 25 marks each and 5 out of 6 short notes of 10 marks each total

#### Practical Exam

Total Marks	=	400
Long Case 1	=	100
Short Case 2    50 X 2	=	100
Spot	=	60
Ward round	=	40

Tables : 100		
1) Instruments	=	25
2) X-rays	=	25
3) Specimen & Bones and splints	=	25
4) Operation	=	20
5) Communication Skill	=	05

**Passing will be 50% of the marks in each head separately i.e. Theory, Practical and internal examination. Total marks should be 50% of the total marks for passing**