

**BHARATI VIDYAPEETH**  
**(DEEMED TO BE UNIVERSITY), PUNE, INDIA**  
**PhD Entrance Test – 2025**  
**SECTION-II: Oral and Maxillofacial Surgery - 35 Marks**

**1. Applied Basic Sciences:**

The candidate should have a thorough knowledge both on theory and principles in general and particularly the basic medical subjects as relevant to the practice of maxillofacial surgery.

**A. Anatomy:**

Development of face, paranasal sinuses.

Surgical anatomy of scalp, temple and face, anatomy and its applied aspects of

Triangles & deep structures of neck, cranial and facial bones & surrounding soft tissues

Cranial nerves

**B. Physiology:**

Blood - its composition hemostasis, blood dyscrasias, hemorrhage and its control,

Digestive system composition and functions of saliva, mastication, deglutition, digestion,

**C. Biochemistry:** General principles governing the biological principles of the body

**D. General Pathology:**

Inflammation, repair and regeneration,

Shock types of shock, diagnosis, resuscitation, pharmacological support,

Neoplasm - classification of tumors,

Carcinogens and Carcinogenesis, grading and staging of tumors.

**E. General Microbiology:**

Immunity,

Hepatitis B and its prophylaxis,

Knowledge of organisms commonly associated with diseases of oral cavity,

**F. Oral Pathology And Microbiology:**

Developmental disturbances of oral and paraoral structures,

Bacterial, viral, mycotic infection of oral cavity.

Cysts, odontogenic infection, benign & malignant neoplasms, salivary gland diseases,

Maxillary sinus diseases,

**G. Pharmacology And Therapeutics:**

General and local anesthetics,

Antibiotics

**2. Oral and Maxillofacial Surgery:**

- Informed consent/medico-legal issues.
- Concept of essential drugs and rational use of drugs.
- Principles of evidence based surgery
- Principles of surgery
- Medical emergencies
- Pre operative workup - Concept of fitness for surgery; basic medical work up;
- Post operative care- concept of recovery room care, airway management
- Wound management- Wound healing, factors influencing healing, basic surgical techniques
- Surgical Infections - Asepsis and antisepsis, rational use of antibiotics,
- Airway obstruction/management
- Anesthesia - stages of anesthesia, intravenous and regional anesthetics.
- Facial pain; facial palsy and nerve injuries.
- Pain control- acute and chronic pain,
- Clinical oral surgery - all aspects of dento alveolar surgery
- Pre-prosthetic surgery.
- Temporomandibular joint disorders - assessment and management.
- Reconstructive Oral and Maxillofacial Surgery - hard tissue and soft tissue reconstruction.
- Cyst and tumors of head and neck region and their management
- Neurological disorders -
- Maxillofacial trauma - basic principles, primary care, diagnosis and management
- Orthognathic surgery
- Laser surgery - The application of laser technology in the treatment of oral lesions
- Distraction osteogenesis in maxillofacial region.
- Cryosurgeries - Principles, the application of cryosurgery
- Cleft lip and palate surgery-diagnosis and treatment planning,
- Aesthetic facial surgery .
- Craniofacial surgery & craniofacial anomalies.
- Head and neck oncology - principles of head and neck oncology .
- Micro vascular surgery.
- Implantology - principles, surgical procedures for insertion of implants.

**3. Allied Specialties:**

- General medicine: General assessment of the patient
- General surgery: Principles of general surgery,
- Neuro - surgery: Evaluation & management of a patient with head injury,
- Orthopedic: basic principles of orthopedic surgery,
- Anesthesia: Evaluation of patients for GA technique , knowledge of IV sedation

### **REFERENCE BOOKS:**

1. Oral and Maxillofacial Surgery:Fonseca et al: vol 1:2<sup>nd</sup> edition
2. Osseointegration in Craniofacial Reconstruction: Branemark et al:Quintessence,1998
3. Current therapy in Oral and Maxillofacial Surgery: Bagheri et al: Elsevier 2012
4. Contemporary Oral and Maxillofacial Surgery:Peterson:4<sup>th</sup> edition
5. Oral and Maxillofacial Surgery Vol.II: Laskin D.M.
6. Principle of Oral Surgery: Moore J.R