

**RAJASTHAN PUBLIC SERVICE COMMISSION, AJMER**  
**SYLLABUS FOR SCREENING TEST FOR THE POST OF**  
**ASSISTANT PROFESSORS (Broad Speciality)**  
**DENTAL AND PROSTHETIC HEAD AND NECK CANCER SURGERY**  
**MEDICAL EDUCATION DEPARTMENT**

**A. Medical Subjects :-**

**Anatomy-**

Detailed Anatomy & Osteology of Head & Neck, Arterial Supply & Lymphatic drainage of the head & neck, Study of cranial nerves – in detail extracranial course 5<sup>th</sup>, 7<sup>th</sup>, 10<sup>th</sup>.

**Physiology-**

Basic chemistry & fate of haemoglobin, blood groups, WBC types, number, variations, function, formation, circulation. Blood- composition, functions, ESR, Hemoglobin, Anemia, blood cells, Blood groups, ECG, Cardiac output, Heart rate, Cardiac cycle, Blood pressure, Blood volume. Biochemistry applied to Dental Science.

**Pathology-**

Inflammation - Acute & chronic inflammation, repair of wound, Hemorrhage, Shock, Syncope, Circulatory disturbances & Hypertension. Cell biology, Necrosis, Healing, Infectious diseases, Blood disorders.

**Microbiology-**

Introduction to Bacteriology with special reference to medical & Dental Bacteriology, Immunity & immunizing agents. Allergy, Drug reactions.

**Medicine-**

Medical emergencies in Dental practice.

Congenital & rheumatic heart disease, Anaemia, coagulation defects, bleeding diseases.

Hepatitis, AIDS, Autonomic nervous system, spinal cords, Physiology of pain, Facial palsy, Neuralgia, Epilepsy, Migraine etc., Hypoxia, Cyanosis, Dyspnoea, Artificial respiration, Infection control, Prevention of cross infection and safe disposal of wastes.

**Pharmacology-**

Cardiovascular Drugs - Vasopressor agents & treatment of shock, Dosage & mode of administration of drugs, Drugs acting on blood - anticoagulants, coagulants & hematinic, Antiseptics, astringents.

General pharmacology and dental pharmacology, Concept of essential drugs and rational use of drugs.

**Surgery General-**

General principle of Surgery, Biopsy and other investigations. Concept of recovery room care, airway management, management of cardiovascular instability in this period, criteria for shifting to the ward, Pain management, Wound management, Surgical infection, Airway obstruction/Management, Mouth to Mouth Resuscitation, Endotracheal intubation, Cricothyroidotomy, Tracheostomy, General patient management – Physical assessment of patient of surgery.

## **B. Dental Subjects :-**

### **Oral Pathology-**

Knowledge of organisms commonly associated with diseases of oral cavity, Study of Human masticatory apparatus and its functions in healthy and deranged occlusal states & in conditions incidental to partial or complete loss of teeth and/or facial structure.

### **Prosthodontic-**

Study of the principle, procedures and techniques of constructing and maintaining various types of dentures and allied prosthesis including the material used, Study of biological & mechanical considerations related to various types of dentures and allied prosthesis. Prosthodontics – Classification, Components, Education of patient, diagnosis and treatment planning, Principles and technique of impression making, Principles of retention and stability, Jaw relations, Pontics and retainers in removable and fixed prosthodontics, Recent advances in material and techniques in prosthodontics.

### **Oral Medicine and Dental Radiology-**

Metastasis, infections, osteo radionecrosis. Forensic odontology & other miscellaneous. Conditions, Neoplasm, cysts and premalignant lesions and their management, Salivary substitute, Hazards of radiation, Radiological techniques of head & neck region including C.T. Scan, MRI & Dentscan, Radiological anatomy of head & neck & interpretation of X-ray films and differential diagnosis of various radiological finding. Role of CBCT in maxillofacial imaging.

### **Oral Surgery-**

Surgical procedures of diseases and defects of oro facial region, Recent advances in oral and maxilla facial oral surgery in medically compromised patient, General Anaesthesia, Fractures of maxillo-facial region, Salivary glands disorders, Disease of reticulo endothelial system & auto immune diseases, TMJ Dysfunction.

Basics of oral implantology, various types, procedures and their implication in relation to systemic diseases and fabrication of supra structures, Masticatory system and deglutition, Local anesthesia and general anesthesia, Soft tissue and hard tissue diseases of oral cavity, Facial pain and differential diagnosis, Management of dental problems in medically compromised patients, Exodontia, Impactions, TMJ and Tumour surgery, Cystic diseases and their management, Management of neurological disorders and their management, Acquired and congenital disorders and their management, Medical emergencies and their management in dental practices, Pre prosthetic surgery, Removable Partial Principles of surgery – Surgical diagnosis, basic necessity for surgery, aseptic techniques, incisions, flap design, hemostasis, dead space management, decontamination and debridement, suturing, edema control, patient general health and nutrition, Pre operative workup, Surgical sutures and drains.

## **Surgical Oncology-**

Autogenous and heterogeneous tissue grafting, Etiology, Pathophysiology, Periapical diagnosis and management of common restorative situations, endodontic situations including management of trauma and pulpal pathosis.

Autogenous extra oral bone graft harvesting techniques, Advanced implantology including zygomatic implants, Dental materials related to maxillofacial Prosthetics, Neck dissection, Radiotherapy and chemotherapy of head and neck tumors, Surgical reconstruction of Oral and Maxillofacial defects, Local and regional flap in head and neck surgery, Microvascular surgery and flaps in head and neck tumor management.

## **Maxillofacial defects-**

Classification of maxillofacial defects ( intra oral and extra oral), Obturators: types, indications, applications, Guiding appliances, Maxillectomy defects and prosthesis, Mandibulectomy defects and prosthesis, Nasal defects and nasal prosthesis, Ear defects and ear prosthesis, Orbital defects and orbital prosthesis, Tongue defects, Impression techniques in maxillofacial Prosthetics, Retention in maxillofacial Prosthetics, Use of CAD/CAM in maxillofacial Prosthetics, Role of dental implants in retention of maxillofacial Prosthetics.

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### **Pattern of Question Papers:**

- 1. Objective Type Paper**
- 2. Maximum Marks: 180**
- 3. Number of Questions: 180**
- 4. Duration of Paper : Three Hours**
- 5. All Questions carry equal marks**
- 6. Medium of Screening Test: English**
- 7. There will be Negative Marking**  
(1/3 part of the mark(s) of each question will be deducted for each wrong answer)