

Paramedical council of India

DIPLOMA IN OPERATION THEATRE TECHNOLOGY

Eligibility

* Interested candidate must have passed 10+2 with physics chemistry biology or math with 40% marks by state board or any recognized board/ university.

Second year

MICROBIOLOGY & ANESTHESIA TECHNIQUES

1. Introduction
2. Different types of infections, pathological bacteria, viruses, and action-mycosis & fungi nosocomical infections.
3. Universal precautions for AIDS, HBV etc.
4. Infection in Operation Theater. HAI
5. Waste disposal.
6. Sample collection, labeling and sending it to lab.
7. Types of disinfections & sterilization
8. Antigen and antibody reaction.
9. Aims and objectives
10. Types of Anesthesia & Analgesics (routes, IV, skin patches, suppositories etc.
11. General anesthesia
12. Local blocks
13. Regional, spinal, epidural and nerve blocks

Drugs used in anesthesia

Including agents

Muscles relaxants & reversal

Inhalational anesthesia

Sedatives, hypnotics, analgesics

Anticholinergic

Antihypertensive

Antiemetic

Drugs used in obstetrics

Anticholinergic
Antihypertensive
Antiemetic
Drugs used in obstetrics
Antiallergic drugs
Antiallergic drugs
Steroids
Drugs used in cardiac arrest, shock
Miscellaneous drugs
Drugs used in local blocks, spinal & epidural

Gases

Oxygen, nitrous oxide, carbon dioxide, cyclopropane, nitrogen
Cylinders- handling and care. Types and size of cylinders
Central Gas Pipe line

Boyle's apparatus

Face mask, vaporizers etc.
Supply of compressed Gases, Liquid Oxygen storage and supply system, methods or reducing these Gases to workable pressure, structure or reducing valve
Methods of vaporizing volatile anesthesia agents, maintenance & safety precautions
Types of circuits- open, semi closed & closed circuits.
Non recreating value T-piece, to & FRO system
Type of value used in different circuits.
Resuscitators (ambo back, silicon bag etc)

Incubating Equipments

Laryngoscopes, End tracheal tubes, tube connections, Magill forceps, bite block equipment for difficult intubation, styled, bogie, Mc Coy laryngoscope, LMA, fiber Optic bronchoscope, air ways, kombi tube, crick-thyrodecomy selection, cleaning & sterilization

Monitoring Equipment

Stethoscope, B.P. apparatus, esophageal stethoscope, plus ox meter, multimonitor, ECG and Gas meter, Gas monitor, temperature

Instruments used in Anesthesia

Anesthesia Ventilator, infusion pump suction catheters, canola, spinal & epidural needles
IV fluids
Preparations of L.V. drip types of fluid, precautions, allergic reaction, and blood transfusion.
Setting of Anesthesia trolley for different types of anesthesia
Setting trolley for CRP Training in basic life support, advance life support
Suction machine, diathermy machine, defibrillator, baby resuscitation trolley, for difficult intubation.
Anesthesia in different surgeries
G.I., Genitourinary, ENT, eye, neuron, plastic, obstetric & genie, paid neonates.
Cardio-pulmonary, ortho etc

Technical terms used in Anesthesia.

Anesthesia in special problematic surgical/diagnostic procedures

Blood warming, preservation, checking.

Pain path ways Techniques and relief, various nerve blocks and agents

Recent advances.

ENT EYE AND NURSING CARE

Give broad ideas about the surgery with emphasis on position, instruments required and Assistant's role in keeping & maintenance of microscopes etc.

1. Tonsil & adenoids
2. Septoplasty, mastoid & Tympanoplasty
3. Instruments & positions
4. Tracheotomy, Laryngectomy, tracheal repair.

Eye Surgery

Broad idea about surgery but emphasis on role of technician as assistant in position, banding, preparation of instruments, cataract, squint, penetrating injury, syringing etc

Special Equipment:

Endoscope, bronchoscope, orsophago scope, fiberscope, laparoscope, cyst scope, imaging equipment, x-ray & c-arm, ultrasound care maintenance and sterilization

Nursing care

Pre-operative management of patient

Post-operative management of patient

PACU: Post Anesthesia care unit

Transportation of critically ill Transportation ambulance

Shifting patients, monitoring of vital functions, detection of life threatening problems, e.g., shock respiratory failure, vomiting etc.

Transportation of patient to and from the operation theatre

GYNE & OBSTETRIC

1. Introduction of gyne & obstetric instruments used in normal delivery, forceps etc
2. LSCS including instruments required, Emergency LSCS
3. Neonatal Resuscitation
 - Pain relief in labor
 - MTP & Cauterization of Cx, D&c, hysterectomy
 - Abdominal, vaginal & lap assisted (LAVH)
 - Laparoscopic sterilization, Laparocator & Laparoscope
 - Diagnostic aids in pregnancy and labor
 - Ectopic pregnancy

SURGICAL TECHNIQUES

1. Infection- General Principles of asepsis. Specific infections like tetanus, gas gangrene, cellulites, carbuncle, abscess etc.
2. Dressing, sutures, bandages & plasters.
3. Give broad ideas about the following, with emphasis on surgical positions, instruments required in the case and role of assistant:
 - Swelling in necks
 - G.I. surgery e.g. prostate, kidney stones
 - Plastic surgery-burns, graft etc.
 - Hemorrhoids, fistula, fissure etc
4. Preparation of patient, aseptic techniques & draping.
5. Universal precaution for HIV positive, Hb As Antigen.