

**FURTHER DETAILS REGARDING MAIN TOPICS OF
PROGRAMME No. 11/2019 (Item No.3)**

ASSISTANT PROFESSOR IN ANAESTHESIA

(NCA NOTIFICATION)

MEDICAL EDUCATION SERVICE

(Category No.153/2018)

MODULE 1

BASIC SCIENCES

History of Anaesthesia

Anatomy, Physiology, Pharmacology, Pathology, Microbiology and
Genetics related to Anaesthesia

Physics related to Anaesthesia

Biostatistics and Research Methodology

Uptake and Distribution of Anaesthetic Agents

MODULE 2

CLINICAL ANAESTHESIA

Preoperative Evaluation

Anaesthetic Implication of Concurrent Diseases and Medications

Patient Positioning and Associated Risks

Malignant Hyperthermia and Muscle Related Disorders

Risk of Anaesthesia

General Anaesthesia

Ambulatory Anaesthesia

Non Operating Room Anaesthesia

Cognitive Dysfunction and the Long term Complication of Surgery and
Anaesthesia

MODULE 3

Regional Anaesthesia

Spinal Epidural and Caudal Anaesthesia

Regional Anaesthesia in Children

Peripheral Nerve Blocks

Ultrasound Guidance for Regional Anaesthesia
Labor Analgesia
Airway Management

MODULE 4

Anaesthesia for Laser Surgery
Anaesthesia for Robotically Conducted Surgery
Anaesthesia for Laparoscopic Procedures
Anaesthesia for Bariatric Surgery
Anaesthesia for Fetal Surgeries and other Fetal Therapies
Anaesthesia for Orthopaedic Procedures
Geriatric Anaesthesia
Obstetric Anaesthesia
Paediatric Anaesthesia

MODULE 5

Anaesthesia for Cardiovascular and Thoracic Surgery
Anaesthesia for Neurological Surgeries
Anaesthesia for Renal, Genitourinary System and Hepatobiliary Surgery
Brain Death
Anaesthesia for Organ Procurement and Organ Transplantation
Anaesthesia for Ophthalmic and Ear, Nose and Throat Surgery
Anaesthesia and Endocrine Disorders

MODULE 6

Critical Care and Pain Management
CPR - Basic and Advanced life support
Respiratory Care
Nutrition and Metabolomics
Extracorporeal Support Therapies
Neurocritical Care
Anaesthesia and Prehospital Emergency and Trauma Care
Role of Anaesthesia Provider in Natural and Human induced Disasters
Acute and Chronic Pain
Palliative Care

MODULE 7

Fundamental Principles of Monitoring Instrumentation
Cardiovascular, Neurological, Respiratory, Renal and Neuromuscular
Monitoring

Temperature Regulation and Monitoring

Perioperative Fluid and Electrolyte Therapy

Perioperative Acid Base Balance

Patient Blood Management: Transfusion Therapy

MODULE 8

Equipments used in Anaesthesia

Medical Gas plant and Pipeline System

Oxygen and Respiratory Therapy

Sterilisation and Care of Operation Theatre and Equipments

Safety of Operation Theatre

Monitored Anaesthesia Care

Postoperative Care Unit

Accidents, Complications and Sequelae of Anaesthesia

Patient Simulators

NOTE: - It may be noted that apart from the topics detailed above, questions from other topics prescribed for the educational qualification of the post may also appear in the question paper. There is no undertaking that all the topics above may be covered in the question paper