

MBBS Final Professional Part II

Syllabus for General Surgery : Competency based Undergraduate Curriculum in Surgery and Allied Subjects as mentioned in Volume III

Paper I : 100 Marks

Part - A

MCQs from Syllabus of part B & C of paper I

Part - B

Topics : Basic surgery, Trauma, Skin, Head & Neck (excluding thyroid) & Oral cavity, Investigations in Surgery , AETCOM

Basic Surgery

- SU1.1 Describe Basic concepts of homeostasis, enumerate the metabolic changes in injury and their mediators.
- SU1.2 Describe the factors that affect the metabolic response to injury.
- SU1.3 Describe basic concepts of perioperative care.
- SU2.1 Describe Pathophysiology of shock, types of shock & principles of resuscitation including fluid replacement and monitoring.
- SU2.2 Describe the clinical features of shock and its appropriate treatment.
- SU3.1 Describe the Indications and appropriate use of blood and blood product and complications of blood transfusion.
- SU4.2 Describe Clinical features, Diagnose type and extent of burns and plan appropriate treatment.
- SU4.3 Discuss the Medicolegal aspects in burn injuries.
- SU5.1 Describe normal wound healing and factors affecting healing
- SU5.3 Differentiate the various types of wounds, plan and observe management of wounds.
- SU6.1 Define and describe the aetiology and pathogenesis of surgical Infections

- SU6.2 Enumerate Prophylactic and therapeutic antibiotics
- SU7.1 Describe the Planning and conduct of Surgical audit
- SU7.2 Describe the principles and steps of clinical research in General Surgery
- SU9.1 Choose appropriate biochemical, microbiological, pathological, imaging investigations and interpret the investigative data in a surgery
- SU9.2 Biological basis for early detection of cancer and multidisciplinary approach in management of cancer
- SU10.1 Describe the principles of perioperative management of common surgical procedures
- SU11.1 Describe principles of Preoperative assessment.
- SU11.2 Enumerate the principles of general, regional, and local Anaesthesia.
- SU11.4 Enumerate the indications and principles of day care General Surgery
- SU11.5 Describe principles of providing post-operative pain relief and management of chronic pain.
- SU11.6 Describe Principles of safe General Surgery
- SU12.1 Enumerate the causes and consequences of malnutrition in the surgical patient
- SU12.2 Describe and discuss the methods of estimation and replacement of the fluid and electrolyte requirements in the surgical patient
- SU12.3 Discuss the nutritional requirements of surgical patients, the methods of providing nutritional support and their complications
- SU13.1 Describe the immunological basis of organ transplantation
- SU13.2 Discuss the Principles of immunosuppressive therapy. Enumerate Indications, describe surgical principles, management of organ transplantation
- SU13.3 Discuss the legal and ethical issues concerning organ donation
- SU14.1 Describe Aseptic techniques, sterilization and disinfection.

- SU14.2 Describe Surgical approaches, incisions and the use of appropriate instruments in Surgery in general.
- SU14.3 Describe the materials and methods used for surgical wound closure and anastomosis (sutures, knots and needles)
- SU15.1 Describe classification of hospital waste and appropriate methods of disposal
- SU16.1 Minimally invasive General Surgery: Describe indications advantages and disadvantages of Minimally invasive General Surgery

Trauma

- SU17.1 Describe the Principles of FIRST AID
- SU17.3 Describe the Principles in management of mass casualties
- SU17.4 Describe Pathophysiology, mechanism of head injuries
- SU17.5 Describe clinical features for neurological assessment and GCS in head injuries
- SU17.7 Describe the clinical features of soft tissue injuries.
- SU17.8 Describe the pathophysiology of chest injuries.
- SU17.9 Describe the clinical features and principles of management of chest injuries.

Addendum*- Blunt Injury Abdomen, Urological Trauma, Polytrauma

Skin

- SU18.1 Describe the pathogenesis, clinical features and management of various cutaneous and subcutaneous infections.
- SU18.2 Classify skin tumors Differentiate different skin tumors and discuss their management.

Head & Neck with Oral cavity

- SU21.1 Describe surgical anatomy of the salivary glands, pathology, and clinical presentation of disorders of salivary glands
- SU21.2 Enumerate the appropriate investigations and describe the principles of treatment of disorders of salivary glands

SU20.1 Describe etiopathogenesis of oral cancer, symptoms and signs of oropharyngeal cancers

SU20.2 Enumerate the appropriate investigations and discuss the principles of treatment of oral cancers.

Investigations in Surgery

SU 19.1 Choose appropriate biochemical, microbiological, pathological, imaging investigations and interpret the investigative data in a surgical patient

SU 19.2 Biological basis for early detection of cancer and multidisciplinary approach in management of cancer

SU 19.3 Communicate the results of surgical investigations and counsel the patient appropriately

Part – C

Topics : Gastrointestinal surgery, Hernia, Breast, Endocrine (Thyroid, Parathyroid and Adrenal)

Gastrointestinal Surgery

SU28.3 Describe causes, clinical features, complications and principles of management of peritonitis

SU28.4 Describe pathophysiology, clinical features, investigations and principles of management of Intra-abdominal abscess, mesenteric cyst, and retroperitoneal tumors

SU28.5 Describe the applied Anatomy and physiology of esophagus

SU28.6 Describe the clinical features, investigations and principles of management of benign and malignant disorders of esophagus

SU28.7 Describe the applied anatomy and physiology of stomach

SU28.8 Describe and discuss the aetiology, the clinical features, investigations and principles of management of congenital hypertrophic pyloric stenosis, Peptic ulcer disease, Carcinoma stomach

- SU28.10 Describe the applied anatomy of liver. Describe the clinical features, Investigations and principles of management of liver abscess, hydatid disease, injuries and tumors of the liver
- SU28.11 Describe the applied anatomy of spleen. Describe the clinical features, investigations and principles of management of splenic injuries. Describe the post-splenectomy sepsis - prophylaxis
- SU28.12 Describe the applied anatomy of biliary system. Describe the clinical features, investigations and principles of management of diseases of biliary system
- SU28.13 Describe the applied anatomy of small and large intestine
- SU28.14 Describe the clinical features, investigations and principles of management of disorders of small and large intestine including neonatal obstruction and Short gut syndrome
- SU28.15 Describe the clinical features, investigations and principles of management of diseases of Appendix including appendicitis and its complications
- SU28.16 Describe applied anatomy including congenital anomalies of the rectum and anal canal
- SU28.17 Describe the clinical features, investigations and principles of management of common anorectal diseases
- SU28.18 Describe and demonstrate clinical examination of abdomen. Order relevant investigations. Describe and discuss appropriate treatment plan

Hernia

- SU28.1 Describe pathophysiology, clinical features, Investigations and principles of management of Hernias

Breast

- SU25.1 Describe applied anatomy and appropriate investigations for breast disease
- SU25.2 Describe the etiopathogenesis, clinical features and principles of management of benign breast disease including infections of the breast

SU25.3 Describe the etiopathogenesis, clinical features, Investigations and principles of treatment of benign and malignant tumours of breast.

ENDOCRINE (Thyroid ,Parathyroid and Adrenals)

SU22.1 Describe the applied anatomy and physiology of thyroid

SU22.2 Describe the etiopathogenesis of thyroidal swellings

SU22.3 Demonstrate and document the correct clinical examination of thyroid swellings and discuss the differential diagnosis and their management

SU22.4 Describe the clinical features, classification and principles of management of thyroid cancer

SU22.5 Describe the applied anatomy of parathyroid

SU22.6 Describe and discuss the clinical features of hypo - and hyperparathyroidis and the principles of their management

SU23.1 Describe the applied anatomy of adrenal glands

SU23.2 Describe the etiology, clinical features and principles of management of disorders of adrenal gland

SU23.3 Describe the clinical features, principles of investigation and management of Adrenal tumors

SU24.1 Describe the clinical features, principles of investigation, prognosis and management of pancreatitis

SU24.2 Describe the clinical features, principles of investigation, prognosis and management of pancreatic endocrine tumours

SU24.3 Describe the principles of investigation and management of Pancreatic disorders including pancreatitis and endocrine tumo

General Surgery Paper II : 100 Marks

Part – A

MCQs from syllabus of Part B & part C syllabus (Orthopedic)

Part – B

Urology, Cardiothoracic and vascular diseases(arterial and venous), Burns, Plastic surgery, Pediatric surgery, Anesthesia & Pain management, Neurosurgery and Dentistry

Urology

- SU29.1 Describe the causes, investigations and principles of management of Hematuria
- SU29.2 Describe the clinical features, investigations and principles of management of congenital anomalies of genitourinary system
- SU29.3 Describe the Clinical features, Investigations and principles of management of urinary tract infections
- SU29.4 Describe the clinical features, investigations and principles of management of hydronephrosis
- SU29.5 Describe the clinical features, investigations and principles of management of renal calculi
- SU29.6 Describe the clinical features, investigations and principles of management of renal tumours
- SU29.7 Describe the principles of management of acute and chronic retention of urine
- SU29.8 Describe the clinical features, investigations and principles of management of bladder cancer
- SU29.9 Describe the clinical features, investigations and principles of management of disorders of prostate
- SU29.10 Demonstrate a digital rectal examination of the prostate in a mannequin or equivalent
- SU29.11 Describe clinical features, investigations and management of urethral strictures

- SU30.1 Describe the clinical features, investigations and principles of management of phimosis, paraphimosis and carcinoma penis.
- SU30.2 Describe the applied anatomy clinical features, investigations and principles of management of undescended testis.
- SU30.3 Describe the applied anatomy clinical features, investigations and principles of management of epididymo-orchitis
- SU30.4 Describe the applied anatomy clinical features, investigations and principles of management of varicocele
- SU30.5 Describe the applied anatomy, clinical features, investigations and principles of management of Hydrocele
- SU30.6 Describe classification, clinical features, investigations and principles of management of tumours of testis

Cardiothoracic and vascular diseases (arterial and venous)

- SU26.1 Outline the role of surgery in the management of coronary heart disease, valvular heart diseases and congenital heart diseases
- SU26.3 Describe the clinical features of mediastinal diseases and the principles of management
- SU26.4 Describe the etiology, pathogenesis, clinical features of tumors of lung and the principles of management
- SU27.1 Describe the etiopathogenesis, clinical features, investigations and principles of treatment of occlusive arterial disease
- SU27.2 Demonstrate the correct examination of the vascular system and enumerate and describe the investigation of vascular disease
- SU27.3 Describe clinical features, investigations and principles of management of vasospastic disorders
- SU27.4 Describe the types of gangrene and principles of amputation
- SU27.5 Describe the applied anatomy of venous system of lower limb

SU27.6 Describe pathophysiology, clinical features, Investigations and principles of management of DVT and Varicose veins

SU27.7 Describe pathophysiology, clinical features, investigations and principles of management of Lymph edema, lymphangitis and Lymphomas

Burns

SU4.1 Elicit document and present history in a case of Burns and perform physical examination. Describe Pathophysiology of Burns.

SU4.2 Describe Clinical features, Diagnose type and extent of burns and plan appropriate treatment

SU4.3 Discuss the Medicolegal aspects in burn injuries.

Plastic Surgery & Pediatric surgery

SU19.1 Describe the etiology and classification of cleft lip and palate

SU19.2 Describe the Principles of reconstruction of cleft lip and palate

PM7.9 Enumerate the indications of debridement, and Split thickness skin grafting. Anaesthesia and pain management

SU10.1 Describe the principles of perioperative management of common surgical procedures

SU10.2 Describe the steps and obtain informed consent in a simulated environment

SU11.1 Describe principles of Preoperative assessment.

SU11.2 Enumerate the principles of general, regional, and local Anaesthesia.

SU11.3 Demonstrate maintenance of an airway in a mannequin or equivalent

SU11.4 Enumerate the indications and principles of day care General Surgery

SU11.5 Describe principles of providing post-operative pain relief and management of chronic pain.

SU11.6 Describe Principles of safe General Surgery

Neurosurgery

- SU17.4 Describe Pathophysiology, mechanism of head injuries
- SU17.5 Describe clinical features for neurological assessment and GCS in head injuries
- SU17.6 Chose appropriate investigations and discuss the principles of management of head injuries
- SU17.7 Describe the clinical features of soft tissue injuries. Chose appropriate investigations and discuss the principles of management.

Dentistry

Addendum* - Dentigerous cyst, Alveolar abscess, Ludwigs angina, Mandibular Fractures, Mandibular Tumours

Part – C: Orthopedics

- OR1.1 Principles of pre-hospital care and Casualty management of a trauma victim including principles of triage.
- OR1.2 The aetiopathogenesis, clinical features, investigations, and principles of management of shock.
- OR1.3 Aetiopathogenesis, clinical features, investigations, and principles of management of soft tissue injuries.
- OR1.4 Describe and discuss the Principles of management of soft tissue injuries.
- OR1.5 Describe and discuss the aetiopathogenesis, clinical features, investigations, and principles of management of dislocation of major joints, shoulder, knee, hip.
- OR2.1 Describe and discuss the mechanism of Injury, clinical features, investigations and plan management of fracture of clavicle.
- OR2.2 Describe and discuss the mechanism of Injury, clinical features, investigations and plan management of fractures of proximal Humerus.
- OR2.3 Select, prescribe and communicate appropriate medications for relief of joint pain.

- OR2.4 Describe and discuss the mechanism of injury, clinical features, investigations and principles of management of fracture of shaft of humerus and intercondylar fracture humerus with emphasis on neurovascular deficit.
- OR2.5 Describe and discuss the aetiopathogenesis, clinical features, mechanism of injury, investigation & principles of management of fractures of both bones forearm and Galeazzi and Monteggia injury.
- OR2.6 Describe and discuss the aetiopathogenesis, mechanism of injury, clinical features, investigations and principles of management of fractures of distal radius.
- OR2.7 Describe and discuss the aetiopathogenesis, mechanism of injury, clinical features, investigations and principles of management of pelvic injuries with emphasis on hemodynamic instability.
- OR2.8 Describe and discuss the aetiopathogenesis, mechanism of injury, clinical features, investigations and principles of management of spine injuries with emphasis on mobilisation of the patient.
- OR2.9 Describe and discuss the mechanism of injury, Clinical features, investigations and principle of management of acetabular fracture.
- OR2.10 Describe and discuss the aetiopathogenesis, mechanism of injury, clinical features, investigations and principles of management of fractures of proximal femur.
- OR2.11 Describe and discuss the aetiopathogenesis, mechanism of injury, clinical features, investigations and principles of management of
- (a) Fracture patella (b) Fracture distal femur
 - (c) Fracture proximal tibia with special focus on neurovascular injury and compartment syndrome.
- OR2.12 Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of Fracture shaft of femur in all age groups and the recognition and management of fat embolism as a complication.
- OR2.13 Describe and discuss the aetiopathogenesis, clinical features, Investigation and principles of management of:
- (a) Fracture both bones leg
 - (b) Calcaneus
 - (c) Small bones of foot

- OR2.14 Describe and discuss the aetiopathogenesis, clinical features, Investigation and principles of management of ankle fractures.
- OR2.15 (a) Plan and interpret the investigations to diagnose complications of fractures like malunion, non-union.
- (b) Plan and interpret the investigations to diagnose complications of fractures like, infection, compartmental syndrome.
- OR2.16 Describe and discuss the mechanism of injury, clinical features, investigations and principles of management of open fractures with focus on secondary infection prevention and management.
- OR3.1 Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of Bone and Joint infections
- (a) Acute Osteomyelitis
- (b) Subacute osteomyelitis
- (c) Acute Suppurative arthritis
- (d) Septic arthritis & HIV infection
- (e) Spirochaetal infection
- (f) Skeletal Tuberculosis
- OR4.1 (a) Describe and discuss the clinical features, Investigation and principles of management of Tuberculosis affecting major joints (Hip, Knee).
- (c) Describe and discuss the clinical features, Investigation and principles of management of Tuberculosis spine and cold abscess
- OR5.1 Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of various inflammatory disorder of joints.
- OR6.1 Describe and discuss the clinical features, investigations and principles of management of degenerative condition of spine (Cervical Spondylosis, Lumbar Spondylosis, PID).
- OR7.1 (a) Describe and discuss the aetiopathogenesis, clinical features, investigation and principles of management of metabolic bone disorders in particular osteoporosis, osteomalacia.
- (b) Describe and discuss the aetiopathogenesis, clinical features, investigation and principles of management of metabolic bone disorders in particular rickets, Paget's disease.
- OR8.1 Describe and discuss the aetiopathogenesis, clinical features, assessment and principles of management a patient with Post Polio Residual Paralysis.

- OR9.1 Describe and discuss the aetiopathogenesis, clinical features, assessment and principles of management of Cerebral palsy patient.
- OR10.1 Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of benign and malignant bone tumours and pathological fractures.
- OR11.1 Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of peripheral nerve injuries in diseases like foot drop, wrist drop, claw hand, palsies of Radial, Ulnar, Median, Lateral Popliteal and Sciatic Nerves.
- OR12.1 Describe and discuss the clinical features, investigations and principles of management of Congenital and acquired malformations and deformities of:
- (a) limbs and spine - Scoliosis and spinal bifida
 - (b) Congenital dislocation of Hip, Torticollis
 - (c) congenital talipes equino varus
- OR13.1 Participate in a team for procedures in patients and demonstrating the ability to perform on mannequins / simulated patients in the following:
- i. Above elbow plaster
 - ii. Below knee plaster
 - iii. Above knee plaster
 - iv. Thomassplint
 - v. splinting for long bone fractures
 - vi. Strapping for shoulder and clavicle trauma.
- OR13.2 Participate as a member in team for Resuscitation of Polytrauma victim by doing all of the following :
- (a) I.V. access central -peripheral
 - (b) Bladder catheterization
 - (c) Endotracheal intubation
 - (d) Splintage
- OR14.1 Demonstrate the ability to counsel patients regarding prognosis in patients with various orthopedic illnesses like
- (a) fractures with disabilities
 - (b) fractures that require prolonged bed stay
 - (c) bone tumours
 - (d) congenital disabilities

OR14.2 Demonstrate the ability to counsel patients to obtain consent for various orthopedic procedures like limb amputation, permanent fixations etc..