INTERCOLLEGIATE MRCS EXAMINATION

SYLLABUS

The Royal College of Surgeons of Edinburgh
The Royal College of Surgeons of England
The Royal College of Surgeons and Physicians of Glasgow
The Royal College of Surgeons in Ireland

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Contents

A. Introduction

The syllabus for the examination fully integrates basic science and clinical knowledge. It has been agreed by, and is common to, the Surgical Royal Colleges of Great Britain and Ireland.

The aim of the syllabus is to set out for candidates a comprehensive description of the breadth and depth of the knowledge, skills and attributes expected of them. The syllabus thus provides a framework around which a programme of preparation and revision can be structured. It also sets out the areas in which candidates will be examined.

It should be noted that a syllabus is not the same as a full curriculum, which would consist of a structured educational programme designed to prepare learners for a professional role or examination. (The full curriculum for surgical SHO training will be published separately.) Nor does it set out a test specification, which would define the frequency with which each element of the syllabus would appear in the examination and the weighting that it would carry.

The examination is set at the level appropriate for exit from Basic Surgical Training and for entry to any specialty within Higher Surgical Training.

The syllabus will be constantly revised and updated. The examination will not normally test areas that are not explicitly or implicitly included in the syllabus, but it should be noted that research and changes in the medical environment might sometimes lead to changes in scientific theory and clinical practice before the syllabus is updated to reflect them. Candidates will be expected to keep abreast of such developments by reading the appropriate literature. Topics set out in the syllabus will be widely sampled in every sitting of the examination, but each topic will not be tested on every occasion.

The syllabus reflects the division in the examination between basic science and clinical knowledge/skills, but the basic sciences and clinical knowledge should be seen as a continuum, with the basic sciences being used as a foundation for clinical knowledge. The syllabus adopts a systems-based approach. It has a separate section covering knowledge required for Part 1, the MCQ papers on Applied Basic Sciences, but aspects of this are repeated where appropriate in the rest of the syllabus, principles of surgery-in-general and surgical specialities. The syllabus makes explicit where necessary what knowledge is not required as well as what is needed.

Regional anatomical knowledge of the human body is considered an essential part of the knowledge base required for safe surgery. Lack of such knowledge can have serious consequences for patient safety. It provides the important spatial foundation for understanding pathological processes, for performing clinical examination, for interpreting radiological and other investigations and for performing all operative procedures, whether investigative or therapeutic. The anatomical knowledge required to pass this examination encompasses both basic regional anatomy of the whole body, typically learnt at undergraduate level, and general surgical anatomy of the whole body. Examples of the latter include the surgical anatomy of varicose veins or the thyroid gland. Specialist surgical anatomy of relevant regions such as the detailed

anatomy of the temporal bone and the spatial anatomy of the knee joint relevant to arthroscopy is examined during Higher Surgical Training.

The syllabus is based upon the intercollegiate curriculum but also draws upon the precepts contained in the General Medical Council's publications *Good Medical Practice* (2001) and *Duties of a Doctor* (1995), and the Royal College of Surgeons of England's publication *Good Surgical Practice* (2002). Candidates should be familiar with these publications.

The College would also like to acknowledge the use allowed by the Royal College of General Practitioners of some generic material from its publication *Good Medical Practice for General Practitioners*.

In addition to knowledge of the applied basic sciences relevant to surgery and clinical knowledge, the MRCS examination aims to assess:

- Good clinical care
- Maintaining good medical practice
- Relationships with patients
- Working with colleagues
- Probity
- Health

Topic Grids

The content of the syllabus is given both as a list and as a series of grids. Each individual topic in the syllabus that can be assessed is listed within a grid that indicates, by means of horizontal shading, in which part of the examination it can be tested and the level of knowledge that is expected. The aim of the grids is to provide assistance to candidates and examiners by:

- allowing candidates to gain an idea of the level of knowledge they require for each topic and hence its relative importance. This will be particularly valuable in the clinical examinations for candidates who have not had a job in a particular specialty.
- allowing candidates to focus their revision by setting out clearly the topics that will be covered. Candidates will also be able to see what areas do not need to be revised.
- giving the examiners who are writing and asking questions the basis of a blueprint for question selection and clear guidance on what topics can be asked at what level.
- giving examiners clear guidance on the scope and level allowable in asking on particular topics within specialties, and thus contributing to the uniform standard of the examination.
- giving the internal and external Quality Assurance bodies and the Postgraduate Medical Education and Training Board an authoritative guide to the standard at which questions will be asked.

The levels specified within the grids relate only to knowledge and understanding and their application and thus give an indication of the relative importance of the topics. The levels do not indicate the level of practical skills expected, e.g. examination technique in the clinical section.

Candidates should note that topics to be examined may be listed in either principles of surgery-in-general, the specialty specific or the basic science grids, or in more than one of these.

Level 1

A basic knowledge and understanding that does not go much beyond bookwork and general reading. At this level there is only an elementary linkage of cause and effects between basic sciences and clinical conditions.

Level 2

Deeper knowledge and understanding that allows links and cause and effect to be demonstrated. At this level there is an expectation of a basic ability to define conditions and outline principles of management and the process of diseases.

Level 3

In depth knowledge and understanding that can, where appropriate, be applied to clinical situations. At this level there is an expectation of an ability to synthesize information to draw appropriate conclusions, to explain complex conditions and processes, to make diagnoses and to discuss conclusions and management in detail. It is also expected that candidates' grasp of subject matter would be sufficient to enable them to justify their conclusions and suggest alternative approaches or explanations.

B. Generic Knowledge

Understanding of the following generic areas, based on the General Medical Council's publication *Good Medical Practice*, is expected and may be assessed in the examination.

1. Good clinical care

- Elucidating and evaluating a patient's condition, based on information gathering (history and symptoms) and, when necessary, clinical examination (interpreting signs) and appropriate procedural skills and/or special tests.
- Demonstrating the ability to make competent clinical decisions (diagnoses) and selection of appropriate investigation and/or treatment and knowing when no investigation or treatment is indicated.
- Employing sound skill-based clinical judgement to assess the seriousness of an illness in order to prioritise care.
- Respecting the autonomy of patients as partners in medical decision-making.
- Recognising and working within the limits of one's professional competence, showing a willingness to consult with colleagues, and where appropriate delegating or referring care to those who are recognised as competent.
- Performing consistently well.
- Practising ethically.

2. Maintaining good medical practice

Patient care

- Treating the patient as an individual.
- Integrating information on physical, psychological and social factors that impact on patients. Demonstrating awareness of individual and family psycho-dynamics and their interaction with health and illness.
- Demonstrating an appropriately focussed assessment of a patient's condition based on the history, clinical signs and examination.

Clinical issues

- Managing uncertainty, unpredictability and paradox by displaying an ability to evaluate undifferentiated and complex problems (at a level appropriate to this Diploma).
- Applying and being able to justify the practice of contextual evidence-based medicine.
- Demonstrating the appropriate use of equipment routinely used and a familiarity with the breadth of tests offered in secondary care.

Managing oneself and working with others

- Recognising and working within the limits of one's professional competence.
- Possessing self-insight sufficient to identify one's own strengths and weaknesses

- Managing time and workload effectively and showing an ability to cope with pressure.
- Showing a flexibility of approach according to the different needs of a wide variety of patients, irrespective of their age, cultural, religious or ethnic background, their sexual orientation or any other special needs.
- Having an ability to work effectively in a team, either as a member or leader, accepting the principles of collective responsibility, and consulting colleagues when appropriate.
- Having knowledge of support systems.

3. Relationships with patients

- Empowering patients to make informed choices.
- Respecting patients as competent and equal partners with different areas of expertise.
- Respecting the patients' perception of their experience of their illness (health beliefs).
- Acknowledging and integrating the patients' ideas, concerns and expectations, especially with regard to the nature of their complaint.
- Showing an interest in patients, being attentive to their problems, treating them politely and considerately and demonstrating listening skills.
- Establishing rapport with the patient. Effectively developing relationships with patients, especially by being empathic and sympathetic.
- Communicating and articulating with patients effectively, clearly, fluently and framing content at an appropriate level, including in written communications.
- Involving patients' significant others such as their next of kin or carer, when appropriate, in a consultation.
- Sensitively minimising any potentially humiliating physical or psychological exposure by respecting patients' dignity, privacy and modesty.

4. Population, preventive and societal issues

- Understanding the contemporary compact with patients and the rights and responsibilities of Government, the medical profession and the public.
- Demonstrating an understanding of demographic and epidemiological issues and the health needs of special groups.
- Demonstrating an awareness of socio-political dimensions of health, for example, health care systems, strategy and funding.
- Possessing knowledge of population-based preventive strategies including immunisation and population screening. Having knowledge of contemporary screening and recall systems.
- Understanding the acceptable criteria for screening for disease, and applying the concepts of prevention.

5. Professional, ethical and legal obligations

- Understanding the importance of and demonstrating possession of the appropriate professional values and attitudes, including consistency, accountability, and respect for the dignity, privacy and rights of patients and concern for their relatives.
- Showing knowledge of and adhering to contemporary ethical principles.
- Observing and keeping up to date with the laws and statutory codes governing otolaryngological practice.
- Respecting the principle of confidentiality; and, when passing on information without a patient's consent, being able to justify the decision.
- Understanding the importance of, and demonstrating a commitment to, maintaining professional integrity, standards and responsibility.
- Ensuring that, whenever possible, the patient has understood what treatment or investigation is proposed and what may result, and has given informed consent before it is carried out.
- Demonstrating knowledge of the guidelines for the treatment of patients under 16 years of age, with or without the consent of those with parental responsibility.
- Demonstrating knowledge of issues relating to clinical responsibility, e.g. with regard to drug treatment.
- Showing awareness of the 'good Samaritan' principle, i.e. offering to anyone at risk treatment that could reasonably be expected.
- Demonstrating knowledge of safe practice and methods in the working environment - relating to biological, chemical, physical or psychological hazards - which conform to health and safety legislation.
- Understanding and applying the main areas of relevant legislation, including human rights, equal opportunities, disability, employment, data protection, access to medical reports, consumer protection, health and safety, children and child protection, deaths, controlled drugs, driving motor vehicles.

6. Risk and resource management

- Understanding of how to practise in such a way as to minimise the risk to patients of harm or error.
- Informing patients about their diagnosis, treatment and prognosis, including the effective communication of risk by exchanging information, preferences, beliefs and opinions with patients about those risks.
- Explaining why a treatment is being prescribed, or a management plan proposed, and the anticipated benefits and potential side effects.
- Providing clear explanations of the nature of clinical evidence and its interpretation.
- Ensuring appropriate follow-up arrangements are made.
- Understanding the role of critical event reporting, clinical audit, analysis of patients' complaints and information provided by colleagues in improving patient safety.
- Responding to criticisms or complaints promptly and constructively, and demonstrating an ability to learn from them.

- Demonstrating knowledge of the obligations for notifying outside agencies, for example, regarding safety of medicines and devices to the Medicines Control Agency, and the procedures regarding notifiable diseases.
- Recognising and reporting concerns about underperformance by an organisation or an individual, ensuring that patient care is not compromised and that the appropriate action is taken to protect patients.

7. Appraisal, monitoring of quality of performance, audit and clinical governance

- Demonstrating a commitment to professional audit and peer review.
- Understanding the need for appraisals and assessments of professional competence, including revalidation procedures.
- Applying critical appraisal skills, statistical interpretation and audit to evaluate care.

8. Information management and technology

- Keeping clear, accurate, legible and contemporaneous patient records, which report the relevant clinical findings, the decisions made, the information given to patients details of any drugs or other treatment prescribed and advice about follow-up arrangements.
- Employing written communication skills to make referrals, write reports and issue certification.
- Ensuring that colleagues are well informed when sharing the care of patients, especially to ensure adequate follow-up.
- Providing all relevant information about a patient's history and current condition when referring a patient to a colleague.

9. Teaching, training, appraising and assessing

- Understanding the need for career-long commitment to CPD, learning, teaching and training

10. Probity

Understanding the importance of honesty:

- Ensuring that any research undertaken in practice is done to the highest standards, as approved by a research ethical committee, to ensure that the care and safety of patients is paramount.
- Protecting patients' rights, including confidentiality, and ensuring that patients are not selectively disadvantaged when involved in research.

11. Health and risk to patients

Demonstrating an understanding and appreciation of these guidelines:

- If you know that you have a serious condition which you could pass on to patients, or that your judgement or performance could be significantly affected by a condition or illness, or its treatment, you must follow advice from a consultant in occupational health or another suitable qualified colleague on whether, and in what ways, you should modify your practice, without relying on your own assessment of the risk to patients.

- If you think that you have a serious condition which you could pass on to patients, you must have all the necessary tests and act on the advice given to you by a suitably qualified colleague about necessary treatment and/or modifications to your clinical practice.

C. Generic Clinical Section

1 Generic theoretical knowledge for clinical settings

Pre and peri-operative care

- Consent and the surgical patient
- Risk assessment and scoring systems for the surgical patient
- Principles of local general and regional anaesthesia
- Use of blood and its products in the surgical patient

Postoperative management and critical care

- Pain relief in the surgical patient
- Fluid balance and homeostasis
- Thrombo-embolic prevention and management in surgical illness
- Nutrition and the surgical patient
- Antibiotics and the surgical patient
- Critical care and the surgical patient
- Principles of organ failure and its management
- Management of severely injured patient
- Management of coexisting medical morbidity
- Care of the terminally ill patient
- Principles of organ donation

Surgical techniques and technology

- Safe surgery for the patient and the surgical team
- Sharps safety
- The use of diathermy, laser and other devices for haemostasis and tissue destruction
- Principles of day surgery
- Suturing in its various forms and the materials used
- Principles and indications for endoscopic surgery
- Radiation
- Communicable diseases

Diagnostic techniques

- Principles of diagnostic and interventional radiology
- Indications for imaging guided biopsy

Managing oneself and others

- Coping with crisis and mortality
- Time management
- Principles behind team working

Management and legal issues

- Ethics and medical negligence
- Understanding the certification of death and administrative arrangements
- Clinical governance and critical incidents

2 Generic clinical processes

- History
- Examination
- Investigation

- Working diagnosis and management planning
- Use and interpretation of evidence-based practice

- Instigation of initial management
- Review of surgical intervention/and management strategy/continuity of care
- In-patient management
- Communication with team and other colleagues
- Planning of operative care and ordering of operation lists
- Communication with patient and relatives in all aspects
- Verbal and written communication with GPs and other doctors at all levels
- Principles of multidisciplinary meetings

- Record keeping
- Data collection for audit

3 Generic technical/operative skills

- Expertise in the surgical discipline of that unit (i.e. understanding the indications for the operations performed by the team albeit not being required to be competent in them independently)

- Patient positioning and safe handling
- Draping the patient

- Familiarity with operating sets and diathermy
- Making incisions
- Methods of wound closure

- Various methods of biopsy including FNA, CORE, OPEN

- Wound management

- Ordering of operation lists
- Planning of post-operative care

- Writing/dictating operating notes and discharge letters

D. Outline Syllabus

D1 Basic Sciences

Applied Surgical Anatomy

Development, organs and structures, surface and imaging anatomy of the:

- thorax
- abdomen, pelvis and perineum
- upper limb and breast
- lower limb
- head, neck and spine
- nervous system (central, peripheral and autonomic)

Physiology

General Physiology

- Homeostasis
- Thermoregulation
- Metabolic pathways
- Sepsis and septic shock
- Fluid balance and fluid replacement therapy
- Metabolic abnormalities

System Specific Physiology

- Respiratory system
- Cardiovascular system
- Gastrointestinal system
- Renal system
- Endocrine system
- Central nervous system
- Thyroid and parathyroid
- Glucose homeostasis

Pathology

General Pathology

- Inflammation
- Cellular injury other than by infection
- Wounds and wound healing
- Vascular disorders
- Disorders of growth, differentiation and morphogenesis
- Neoplasia
- Surgical immunology
- Surgical haematology
- Surgical microbiology
- Surgical biochemistry

System Specific Pathology

- Nervous system
- Musculoskeletal system
- Respiratory system
- Breast disorders
- Cardiovascular system
- Endocrine system
- Genito-urinary system
- Gastrointestinal system
- Dermatological diseases
- Lymphoreticular system

D2 PRINCIPLES OF SURGERY-IN-GENERAL

1. PERIOPERATIVE CARE

Assessment of Fitness for Surgery

- Preoperative assessment and risk scoring systems
- Laboratory testing and imaging

Management of Associated Medical Conditions

- Organ specific diseases
- Issues related to medications
- General factors

Preparation for Surgery

- Informed consent
- Pre-medication
- Risk management

Principles of Anaesthesia

- General anaesthesia
- Local anaesthesia
- Regional anaesthesia

Monitoring of the Anaesthetised Patient

- Non-invasive monitoring
- Invasive monitoring

Care of the Patient Under Anaesthesia

- Positioning of the patient in surgery
- Avoidance of nerve injuries

2. POSTOPERATIVE MANAGEMENT AND CRITICAL CARE

Anaesthetic Management

- Postoperative monitoring
- Ventilatory support
- Pain control
- Intravenous drug delivery

Metabolic and Nutritional Support

- Fluid & electrolyte management
- Nutrition in the surgical patient

Postoperative Complications

- General surgical complications
- Respiratory failure
- Acute renal failure
- Systemic inflammatory response syndrome (SIRS)
- Multiple organ dysfunction syndrome (MODS)

3. SURGICAL TECHNIQUE AND TECHNOLOGY

Surgical Wounds

- Classification of surgical wounds
- Principles of wound management
- Pathophysiology of wound healing
- Scars and contractures

Surgical Technique

- Principles of safe surgery
- Incisions and wound closure
- Diathermy, laser, principles of cryosurgery
- Sutures and ligature materials
- Basic surgical instruments

Surgical Procedures

- Minor surgical procedures
- Day care surgery
- Principles of anastomosis
- Endoscopic surgery and laparoscopy

Tourniquets in the Operating Theatre

- Indications for tourniquet use
- Tourniquet application
- Effects and complications of tourniquets

4. MANAGEMENT AND LEGAL ISSUES IN SURGERY

Evidence Based Surgical Practice

- Decision making in surgery
- Statistics
- Principles of research and clinical trials
- Critical evaluations of surgical innovations

Management Aspects of Surgical Practice

- Clinical audit
- Clinical governance
- Medico-legal aspects of surgery

Communication Skills

- Psychological effects of surgery
- Communication skills in medicine and surgery
- Working in teams
- Breaking bad news
- Dealing with conflict
- Management of crises

Medical Litigation

- Avoidance and management of errors
- Ethics and medical negligence

5. CLINICAL MICROBIOLOGY

Surgical Microbiology

- Sources of surgical infection
- Principles of asepsis and antisepsis

Modern Antibiotic Usage

- Commonly used antibiotics
- Selecting the right antibiotic
- Antibiotic resistance

Surgery in Hepatitis and HIV Carriers

- Blood-borne viruses
- Universal precautions
- Surgical precautions
- Immunisation
- Management of sharps injuries

6. EMERGENCY MEDICINE AND MANAGEMENT OF TRAUMA

Pathophysiology of Trauma

- Shock and cardiovascular physiology
- Metabolic response to injury
- Adult respiratory distress syndrome (ARDS)

Initial Assessment of the Trauma Patient

- Principles of pre-hospital care
- Major incident triage
- Clinical assessment and scoring systems
- Resuscitation after trauma

Management of the Unconscious Patient

- Brain injuries
- Assessment and resuscitation of the comatose patient

Traumatic Wounds

- Principles of management
- Gunshot and blast injuries
- Stab wounds
- Human and animal bites

Management of Skin Loss

- The wound
- Skin grafts
- Skin flaps

Traumatic Oedema and Compartment Syndrome

- Pathogenesis and Physiology
- Diagnosis and treatment

Environmental Emergencies

- Hypothermia
- Heat exhaustion
- Management of a radiation incident

Miscellaneous

- Acute loss of vision
- Red eye
- Hepatitis B and HIV/Aids

7. PRINCIPLES OF SURGICAL ONCOLOGY

Epidemiology of Common Cancers

- Epidemiology studies and cancer registration
- Common cancers

Screening Programmes

- Screening for cancer: breast, cervical, prostate, colorectal and skin

Clinico-Pathological Staging of Cancer

- Staging and grading cancer
- Clinical staging
- Pathological staging

Principles of Cancer Treatment

- The role of surgery – block dissections
- Radiotherapy
- Chemotherapy
- Hormone therapy
- Immunotherapy

Palliative Care

- The palliative care team
- Pain and other symptoms

D3 SURGICAL SPECIALTIES

This section lists the topics which basic surgical trainees are expected to know in each of the surgical specialties. In addition, for each specialty, trainees should know the principles of investigations used for that specialty (laboratory tests, imaging modalities and special investigations), and the principles of the main surgical procedures used by that specialty.

CARDIOTHORACIC SURGERY

Haemodynamic Control

- Haemodynamic principles
- Cardiovascular homeostasis
- Pharmacological haemodynamic control

Cardiac Surgery

- Surgical disorders of the heart vessels and heart valves
- Cardio-pulmonary bypass

Thoracic Trauma

- Pathophysiology of thoracic trauma
- Presentation, assessment and management
- Specific thoracic injuries

Thoracotomy and Chest Drainage

- Assessment and preparation
- Indications for thoracotomy
- Chest drainage and pericardiocentesis

Surgical Disorders of the Lung

- Lung cancer
- Other indications for lung resection

Complications of Thoracic Operations

- General complications
- Specific complications

Pneumothorax and Empyema Thoracis

GENERAL SURGERY

A. The Abdomen

Abdominal Trauma

- Penetrating abdominal trauma
- Blunt abdominal trauma
- Assessment and management of abdominal trauma
- Specific organ injuries

Common Abdominal Problems

- Abdominal pain
- Abdominal masses
- The acute abdomen

Abdominal Emergencies

- Intestinal obstruction
- Peritonitis and abdominal and pelvic abscess
- Gastrointestinal haemorrhage

Abdominal Hernia

- Inguinal hernia
- Femoral hernia
- Incisional hernia
- Rare hernias

Intestinal Fistulas

- Classification of intestinal fistulas
- Assessment and management

Gastrointestinal Stomas

- Formation and management
- Other stomas
- Gastrostomy
- Ileostomy
- Colostomy

Surgery of the Spleen

- Splenic disease and injury
- Treatment of splenic disease and injury
- Post-splenectomy sepsis

B. Upper Gastrointestinal Surgery

- Diagnosis of oesophageal disorders
- Specific oesophageal disorders (including gastro-oesophageal reflux disease, motility disorders, oesophageal carcinoma, oesophageal diverticulum and oesophageal foreign body)
- Peptic ulcer disease
- Carcinoma of the stomach

C. Hepatobiliary and Pancreatic Surgery

- Jaundice
- Gall stones and gall bladder disease
- Acute pancreatitis
- Chronic pancreatitis
- Carcinoma of the pancreas
- Benign and malignant biliary strictures
- Portal hypertension and ascites

D. Colorectal Surgery

- Clinical presentation of colorectal and anal disease
- Surgical disorders of the colon and rectum

    - Ulcerative colitis and Crohn's disease
    - Colorectal cancer
    - Diverticular disease
    - Faecal incontinence
    - Rectal prolapse

- Surgical disorders of the anus and perineum

    - Pruritus ani
    - Fissure-in-ano
    - Haemorrhoids
    - Fistula-in-ano
    - Anorectal abscess
    - Carcinoma of the anus
    - Pilonidal sinus and abscess

E. Breast & Endocrine Surgery

Common Breast Disorders

- Breast lumps
- Breast pain
- Breast cysts
- Nipple discharge
- Gynaecomastia

Breast Carcinoma

- Risk factors
- Pathology
- Diagnosis
- Treatment
- Breast reconstruction

Surgery of the Thyroid Gland

- Indications for surgery in thyroid disease
- Thyroid cancer (types and management)
- Complications of thyroidectomy

Parathyroid Disorders

- Calcium metabolism
- Clinical presentation of hypercalcaemia
- Investigation of hyperparathyroidism
- Management of hyperparathyroidism

Adrenal Disorders and Secondary Hypertension

- Causes of hypertension
- Conn's syndrome
- Phaeochromocytoma

Endocrine Disorders of the Pancreas

- Insulinoma
- Gastrinoma
- Neuroendocrine tumours
- Other rare endocrine tumours

F. Vascular Surgery

Arterial Surgery

- Peripheral vascular disease and limb ischaemia
- Arterial embolism and acute limb ischaemia
- Arterial aneurysms
- Carotid disease
- Renovascular disease
- Arterial trauma

Venous Disorders of the Lower Limb

- Venous insufficiency and varicose veins
- Venous ulceration
- Deep venous thrombosis and pulmonary embolism

Lymphoedema

G. Organ transplantation

- Basic principles of transplant immunology
- Clinical organ transplantation
- Organ donation and procurement
- Immunosuppression and prevention of rejection

OTORHINOLARYNGOLOGY, HEAD & NECK SURGERY

Ear, Nose & Throat Disorders

- Inflammatory disorders of the ear, nose and throat
- Foreign bodies in the ear, nose and throat

Common Neck Swellings

- Congenital and rare swellings
- Inflammatory swellings
- Head & neck cancer

Salivary Gland Disorders

- Infections and inflammation of the salivary glands
- Tumours of the salivary glands
- Stones of the salivary glands
- Miscellaneous conditions

Eye Surgery

- Trauma to the eye
- Common eye infections

Endoscopy

ORAL AND MAXILLO-FACIAL SURGERY

Maxillo-facial Trauma

- Classification of facial fractures
- Presentation of maxillo-facial fractures
- Assessment and investigation
- Treatment of facial fractures

Common Conditions of the Face Mouth & Jaws

Principles of Soft Tissue Repair of Mouth Face Head & Neck

PAEDIATRIC SURGERY

Principles of Neo-natal & Paediatric Surgery

- History and physical examination of the neonate and child
- Maintenance of body temperature
- Assessment of respiratory and cardiovascular function
- Metabolic status
- Fluids, electrolytes and the metabolic response
- Vascular access

Correctable Congenital Abnormalities

- Congenital abnormalities of the GI tract
- Congenital heart disease
- Abdominal wall defects
- Diaphragmatic hernia
- Neural tube defects
- Urological abnormalities

Common Paediatric Surgical Disorders

- Pyloric stenosis
- Intussusception
- Inguinal hernia and hydrocele
- Undescended testes
- Torsion of the testes

Orthopaedic Disorders of Infancy and Childhood

- Gait disorders
- Hip problems
- Knee disorders
- Foot disorders

PLASTIC & RECONSTRUCTIVE SURGERY

Burns

- Classification and pathophysiology
- Initial assessment and management
- Treatment including secondary surgery
- Burns of special areas (i.e. face, eyes, hands, perineum)

Soft Tissue Infections

Principles of Hand Trauma (tendon, nerve, nail bed)

Hand disorders

- Dupytren's Disease
- Carpal Tunnel Syndrome

Benign Skin Lesions

Malignant Skin Lesions (Basal Cell Carcinoma, Squamous Cell Carcinoma, Malignant Melanoma)

Principles of Skin Cover

- Split skin grafts
- Full thickness skin grafts
- Local flaps
- Distant flaps
- Free transfer flaps

Principles of Microvascular Surgery

Wound Healing

NEUROSURGERY

Neurological Trauma

- Head injuries

- Spinal cord injuries
- Paralytic disorders
- Nerve disorders

Surgical Disorders of the Brain

- Clinical presentation of the intracranial mass
- Tumours of the nervous system
- Epilepsy
- Congenital and developmental problems

Intracranial Haemorrhage (Subarachnoid, Intracerebral, Subdural, extradural and intraventricaular)

Brain Stem Death

- Diagnosis and testing for brain stem death
- Principles of organ donation

Surgical Aspects of Meningitis

- General features of meningitis
- Surgical considerations

Rehabilitation

- The rehabilitation team
- Pain management
- Rehabilitation

TRAUMA & ORTHOPAEDIC SURGERY

Skeletal Fractures

Pathophysiology of fracture healing

- Classification of fractures
- Principles of management of fractures
- Complications of fractures
- Management of joint injuries
- Common fractures and joint injuries
  - Upper limb
  - Lower limb
  - Trunk, pelvis and vertebral column

Soft Tissue Injuries and Disorders

- Nature and mechanism of soft tissue injury
- Management of soft tissue injuries

Common Disorders of the Extremities

- Disorders of the hand
- Disorders of the foot

Degenerative and Rheumatoid Arthritis

- Osteoarthritis
- Rheumatoid arthritis
- Other inflammatory conditions
- Surgical treatment of joint diseases

Infections of Bones and Joints

- Osteomyelitis
- Other bone infections

Locomotor pain

- Low back pain and sciatica
- Pain in the neck and upper limb

Bone Tumours and Amputations

- Primary bone tumours
- Metastatic bone tumours
- Amputations

General

- Imaging techniques
- Neurophysiological investigations

UROLOGY

Urological Trauma

- Renal, ureteric, bladder, urethral, penile and scrotal trauma

Urinary Tract Infections and Calculi

Haematuria

- Classification, aetiology and assessment
- Tumours of the kidney, bladder, prostate and testis

Urinary Tract Obstruction

- Urinary retention
- Disorders of the prostate

Pain and Swelling in the Scrotum

- Scrotal skin conditions
- Non malignant testicular swellings
- Inflammatory conditions
- Testicular torsion
- Testicular tumours

Chronic Renal Failure

- Dialysis
- Principles of transplantation

Aspects of Pelvic Surgery

- Gynaecological causes of acute abdominal pain
- Pelvic inflammatory disease
- Disorders of urinary continence

E. Main Syllabus

E1 BASIC SCIENCES

Applied Surgical Anatomy

In reviewing the anatomy of the whole body, as indicated below, candidates should aim to acquire a sound, three-dimensional knowledge of the anatomy of structures of special relevance to surgical practice. Particular emphasis should be placed on the anatomy underlying the diagnosis, investigation and management of common and important surgical conditions, such as those requiring emergency treatment, or those arising from acute trauma, e.g. common fractures, dislocations and nerve injuries. Detailed knowledge of anatomy relevant to surgical specialties will not be expected at this stage of training.

In addition candidates should:

- Possess a very good knowledge of surface anatomy and of the anatomy underlying the interpretation of major imaging methods, including x-rays, magnetic resonance imaging and computerised tomography.

- Have the ability to name, orientate and describe the bones of the skeleton, including the hand and foot, without the need to know details of ossification dates.

- Know the principal attachments actions and nerve supply of important muscles.

- Know the course and distribution of major blood vessels and nerves, including dermatome patterns, and pathways of lymphatic drainage, particularly those of important structures, e.g. the breast.

- Have a basic understanding of the microscopical structure of tissues and organs of surgical relevance, e.g. skin, thyroid gland and appendix. This will assist with an understanding of function, including normal processes such as growth, and of pathological processes such as wound healing. Detailed knowledge of cellular structure will not be required.

- Have sufficient knowledge of applied surgical embryology to allow an appreciation of the developmental basis of common congenital abnormalities which can be surgically treated, e.g. congenital heart disease and malrotation of the gut.

ANATOMY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
THORAX												
Development • Heart and great vessels • Foetal circulation • Oesophagus • Diaphragm												
Thorax • Thoracic wall • Mechanics of breathing • Thoracic cavity & viscera: superior and inferior mediastinum, heart & pericardium, lungs, pleurae												
Surface & imaging anatomy • Heart, heart valves • Auscultation sites • Lungs & pleurae • Plane of sternal angle • Dermatomes • Chest drains, incisions • Chest x-ray • CT/MRI												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

ANATOMY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
ABDOMEN, PELVIS, PERINEUM												
Development												
• Foregut, midgut, hindgut												
• Gut rotation												
• Anal canal												
• Kidneys & ureters												
• Bladder & urethra												
• Testis												
Abdomen & pelvis												
• Anterior abdominal wall												
- Inguinal canal and spermatic cord												
- Inguinal hernia												
• Posterior abdominal wall												
• Pelvic floor & wall												
• Lumbar plexus, sacral plexus												
• Peritoneal cavity												
• Intra-abdominal spaces												
Abdominal viscera												
• Oesophagus, stomach												
• Small & large intestine												
• Appendix												
• Liver, gall bladder, bile ducts												
• Pancreas												
• Spleen												
• Kidney & ureter												
• Suprarenal gland												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

ANATOMY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
Pelvic viscera												
• Rectum												
• Bladder												
• Prostate												
• Seminal vesicles												
• Uterus, uterine tubes, ovaries												
• Vagina												
Perineum												
• Anal triangle												
- Anal canal & ischiorectal fossa												
• Male urogenital triangle												
- Scrotum												
- Testis & epididymis												
- Penis & urethra												
• Female urogenital triangle												
- Vulva												
Surface & imaging anatomy												
• Quadrants/nine regions												
• Planes: subcostal, transpyloric, transtubercular												
• Dermatomes												
• Abdominal incisions												
• Rectal & vaginal examinations												
• Imaging appearances of abdomen, gastrointestinal, biliary & urinary tracts												
• Arteriography												
• CT/MRI/Ultrasound												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

ANATOMY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
UPPER LIMB & BREAST												
• Pectoral girdle												
• Breast												
• Axilla												
• Brachial plexus												
• Scapular region												
• Arm												
• Cubital fossa												
• Forearm												
• Hand including carpal tunnel												
• Shoulder joint												
• Elbow joint												
• Radio-ulnar joints												
• Wrist joint												
• Hand joints												
Surface & imaging anatomy												
• Cubital fossa												
• Wrist structures												
• Thumb movements												
• Arteries & pulses												
• Superficial veins & lymphatics												
• Nerves: axillary, radial, musculocutaneous, ulnar & median												
• Dermatomes & tendon reflexes												
• Arteriography/ venography												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

ANATOMY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
LOWER LIMB												
• Gluteal region		■			■			■			■	
• Thigh, front, medial side, back		■				■			■			■
- Femoral triangle		■				■			■			■
- Femoral sheath & canal		■				■			■			■
- Femoral hernia		■				■			■			■
- Adductor canal		■			■			■			■	
• Popliteal fossa		■				■			■			■
• Leg, compartments		■				■			■			■
• Foot, arches		■			■			■			■	
• Hip joint		■				■			■			■
• Knee joint		■				■			■			■
• Ankle joint		■				■			■			■
• Foot joints		■			■			■			■	
Surface & imaging anatomy												
• Femoral triangle		■				■			■			■
• Popliteal fossa		■				■			■			■
• Arteries & pulses		■				■			■			■
• Superficial veins & lymphatics		■				■			■			■
• Nerves: femoral, sciatic, tibial, common peroneal		■				■			■			■
• Dermatomes and tendon reflexes		■				■			■			■
• Arteriography/venography		■				■			■			■

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

ANATOMY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
HEAD, NECK & SPINE												
Development												
• Branchial arches												
• Face, palate												
• Thyroid & parathyroid glands												
• Spine												
Head												
• Face, scalp												
• Cranial cavity, dural venous sinuses, puruitary gland												
• Orbit, eyeball												
• Ear												
• Parotid gland												
• Temporomandibular joint												
• Nose & paranasal air sinuses												
• Mouth, tongue												
• Submandibular & sublingual glands												
Neck												
• Anterior triangle												
- Thyroid & parathyroid glands												
- Larynx & trachea												
- Pharynx & oesophagus												
- Carotid sheath												
• Posterior triangle												
- Spinal accessory nerve												
- Cervical plexus												
• Root of neck												
- Thoracic duct												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

ANATOMY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
Spine												
• Vertebral column												
• Vertebral canal												
Surface & imaging anatomy												
• Middle meningeal artery												
• Neck blood vessels												
• Central venous catheterisation												
• Laryngeal structures												
• Airway access												
• Skull & cervical spine												
• Arteriography												
• CT/MRI												
NERVOUS SYSTEM												
Central nervous system												
• Cerebral hemispheres												
• Ventricles												
• Cerebellum, brain stem												
• Spinal cord												
• Meninges												
Peripheral nervous system												
• Cranial nerves												
• Spinal nerves												
• Peripheral nerves												
Autonomic nervous system												
• General organisation												
Surface & imaging anatomy												
• Arteriography												
• CT/MRI												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

Physiology

Candidates should have a basic knowledge of the physiological principles that will help them to understand surgical pathology and disease processes. Appreciation of abnormal physiology and how to treat it will lead to better surgical outcomes both within and outside the operating theatre.

Candidates should have a working knowledge of general physiological principles that maintain homeostasis and should be able to describe them in the oral examination, e.g. maintenance of normal blood sugar, temperature or fluid balance.

The physiological principles of all types of shock (particularly haemorrhagic) and its treatment is essential knowledge. Candidates should understand the concept of perfusion of organs and the autoregulation of renal and cerebral blood flow. Relating the factors that influence cerebral blood flow to traumatic brain injury is expected.

The physiology of sepsis and the physiological changes accompanying this disease process is particularly important. Early recognition of sepsis by using the definitions of systemic inflammatory response syndrome, sepsis and septic shock will be expected.

Candidates should also have knowledge of the physiology of specific systems: respiratory, cardiovascular, gastrointestinal, renal, endocrine and nervous systems, the thyroid and parathyroid glands, and glucose homeostasis.

Applied clinical respiratory physiology of the peri-operative period is required knowledge. Candidates should be able to describe and explain factors that lead to inefficient respiration, such as opiate overdose, atelectasis, secretion retention, pulmonary embolus, post-operative pneumonia and other reasons. Detailed knowledge of ventilation and perfusion abnormalities is not expected. How intermittent positive pressure ventilation (IPPV), continuous positive airway pressure (CPAP) and positive end expiratory pressure (PEEP) improve oxygenation and their effects on the cardiovascular system should be known. Detailed knowledge of other different modes of ventilation is not expected

Knowledge of the function that each part of the nephron performs (e.g. collecting duct concentrates the urine) is required, as is the endocrine function of the kidney.

Candidates should have knowledge of metabolic pathways to allow understanding of general concepts such as how cells produce energy, lactate production in states of shock, and mechanisms of blood sugar control. Detailed knowledge of metabolic pathways such as each component of the tri-carboxylic acid (Krebs) cycle is not expected.

GENERAL PHYSIOLOGY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
General physiological principles • Homeostasis • Thermoregulation • Metabolic pathways • Sepsis and septic shock • Fluid balance and fluid replacement therapy • Causes of metabolic acidosis/ alkalosis • Colloid and crystalloid solutions												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

SYSTEM SPECIFIC PHYSIOLOGY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
Respiratory system • Central nervous control of ventilation • Normal ventilatory cycle • Intermittent positive pressure ventilation (IPPV) • Blood gases, normal and abnormal • Causes of post operative respiratory failure • Acute (adult) respiratory distress syndrome (ARDS)												
Cardiovascular system • Cardiac pressure cycle • Control of cardiac output • Haemorrhagic shock • Blood pressure & its control mechanisms												
Gastrointestinal system • Gastric emptying • Gut hormones • Pancreatic function • Peristalsis and ileus												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

SYSTEM SPECIFIC PHYSIOLOGY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
Renal system • Function of the nephron • Renal autoregulation • Renin-angiotensin system • Causes of a poor urine output • Types of renal failure												
Endocrine system • Function of the pituitary gland • Function of the adrenal gland • Calcium metabolism • Erythropoetin												
Central nervous system • Causes of postoperative confusion • Physiology of space-occupying lesions • Cerebral autoregulation												
Thyroid & parathyroid • Thyroid hormones • Hypothyroidism • Hyperthyroidism • Parathyroid hormones • Disorders of parathyroid hormones and calcium homeostasis												
Glucose homeostasis												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

Pathology

An understanding of both general and systemic pathology is an integral part of surgical training. Candidates particularly need a sound foundation of knowledge of general pathology, including surgical microbiology and haematology, on which to base their practice.

A good working knowledge of the general pathological principles that underpin inflammation, repair, infection, neoplasia and immunity is expected and is examined thoroughly in the MCQ examinations. Frequently the definition of a common pathological entity such as granuloma, fistula or pathogen forms the start of the oral examination.

Candidates will be expected to have sufficient knowledge of applied histology to be able to interpret the microscopic features of common diseases and conditions when displayed optically at a hospital meeting or on a photograph in a surgical journal. An ability to identify basic cell types, e.g. epithelium, macrophage, plasma cell, is required, but detailed knowledge of the microscopic appearances is not necessary.

Candidates should be able to demonstrate their knowledge of the basic principles of surgical pathology and how to use the output of hospital laboratories in an intelligent and informed way. They should understand what common laboratory tests entail, practical details such as how long they take to perform and what questions should be asked and answered, e.g. frozen section, cross-matching of blood, staging of tumours. The laboratories involved include those devoted to histology, microbiology, haematology, immunology and clinical genetics. Precise details of laboratory techniques are not required.

The epidemiology of disease and the place of screening are increasingly important in day-to-day surgical practice, and an understanding of the principles of these areas is required.

GENERAL PATHOLOGY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
Inflammation • Classification • Acute inflammation with an infective organism as the primary agent; microscopic and macroscopic features including microscopic appearances • Chronic inflammation with an infective organism as the primary agent: non-specific and specific (classified by the infective organism or the host reaction); microscopic and macroscopic features, mechanisms and effects (local and systemic) • Abscess, sinus, fistula formation: definitions, complications												
Cellular injury other than by infection: chemical injury (chemical burns, poisoning, chemotherapy), physical injury (direct destructive trauma), radiation injury, injury as a consequence of genetic abnormalities												
Wounds and wound healing: classification of wounds, ulcer and erosion (resolution and repair), first and second intention healing, scar formation, healing in the central nervous system, fractures and pathological fractures												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

GENERAL PATHOLOGY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
Vascular disorders • Thrombosis and clot formation, hypercoagulable states • Embolus formation: aetiology, complications • Atheroma • Ischaemia and infarction • Aneurysms and varicosities • Oedema, ascities, transudate, exudate • Coagulation deficits: classification, tests, complications												
Disorders of growth, differentiation and morphogenesis • Failure of growth or maintenance of growth: agenesis, apalasia, hypoplasia, atrophy, apoptosis, necrosis • Overgrowth with normal cell differentiation: hyperplasia, hypertrophy, metaplasia, hamartoma formation • Growth and overgrowth with abnormal cell differentiation: giant cells, dysplasia • Accumulations and depositions: amyloid (definiton, causes, diagnosis, effects), haemosiderosis and haemochromatosis, clacification, calculi (definition, causes, complications)												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

GENERAL PATHOLOGY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
Neoplasia												
• Classification of tumours e.g. carcinoma, sarcoma, blastoma, teratoma…….												
• Diagnosis: cytology, biopsy, frozen section												
• Benign neoplasms: complications												
• Carcinogenesis: normal and disordered cell replication, behaviour of cancer cells												
• Molecular biology of cancer: cell cycle and human genome, mechanisms of tumour genesis, tumour markers (classification and uses), mechanisms of invasion and routes of metastasis												
• Typing, grading and staging staging of cancer												
• Teratoma: definition, sites, behaviour												
• Paraneoplastic syndromes												
• Epidemiology of common cancers and cancer registration												
• Principles of screening												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

GENERAL PATHOLOGY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
Surgical immunology Hypersensitivity reactions Complement cascade functions Immunoglobulins and their functions Chemotaxis and cytokines Diseases mediated by immunological mechanisms: Graves's disease, pernicious anaemia, rheumatoid arthritis Immunodeficiency Transplantation, graft-v-host reactions												
Surgical haematology • Anaemia: iron deficiency, B12 and folate deficiency, haemolytic, sickle cell disease, thalassaemia • Polycythaemia • Blood transfusion: components of stored blood, group-and-save and cross-matching, transfusion of large volumes, alternatives to blood transfusion • Bleeding disorders, DIC, platelets • Hypercoagulable states												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

GENERAL PATHOLOGY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
Surgical Microbiology • Surgically important microorganisms • Exotoxins and endotoxins • Pathophysiology of sepsis • Disinfection and sterilisation • Immunisation • Commensals • Nosocomial infections												
Surgical biochemistry • Hypercalcaemia • Plasma proteins • Hepatic function and jaundice • hyperuricaemia												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

SYSTEM SPECIFIC PATHOLOGY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
Nervous system												
• Head injuries including intracranial haemorrhage (extradural, subdural, subarachnoid, intracerebral, intraventricular)												
• Raised intracranial pressure												
• Meningitis: causes, effects, including cerebral abscess												
• Neoplasms: classification												
• Spinal cord and peripheral nerve injuries												
Musculo-skeletal system												
• Bone and joint infection												
• Osteomyelitis												
• Septic arthritis												
• Pathophysiology of fractures and healing												
• Complications of fractures: non-union, mal-union												
• Pathological fractures												
• Traumatic oedema and compartment syndromes												
• Osteoarthritis: causes, joints affected, effects												
• Tumours of the musculo-skeletal system (primary and secondary)												
• Metabolic bone diseases, including gout (classification, aetiology, effects)												
• Rheumatoid arthritis: joints affected, coplications												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

SYSTEM SPECIFIC PATHOLOGY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
Respiratory system • Carcinoma of the bronchus and lung • Pneumothorax • Lung conditiond including pneumonia, empyema thoracis and bronchiectasis												
Breast disorders • Benign and malignant tumours • Breast cancer: screening principles, assessment, classification, staging systems • Infections • Gynaecomastia: causes												
Cardiovascular system • Atherosclerosis • Ischaemic heart disease • Aneurysms, including dissecting • Peripheral vascular disease • Varicose veins • Deep venous thrombosis												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

SYSTEM SPECIFIC PATHOLOGY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
Endocrine system Thyroid: causes of hyperthyroidism and hypothyroidism, classification of thyroid cancers • Parathyroids: classification of hyperparathyroidism, associations • Adrenals: causes and effects of Addison's disease, neoplasms of the cortex and medulla • Pituitary: Cushing's disease, acromegaly • Carcinoid syndrome • Multiple endocrine adenopathy												
Genitourinary system • Gynaecological causes of acute abdominal pain • Pelvic inflammatory disease • Ovarian disease, including cancer • Ectopic pregnancy • Endometriosis • Urinary stone disease • Tumours, including kidney, bladder, penis, testis and scrotum: classification and presentation • Urinary tract infections • Haematuria: causes, effects												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

SYSTEM SPECIFIC PATHOLOGY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
Gastrointestinal system												
• Intestinal fistulas												
• Colonic polyps: classification, aetiology, complications												
• Colonic carcinoma: classification, aetilogoy, genetics, staging sytems, complications												
• Ulcerative colitis,												
• Small bowel disease: Crohn's disease, hamartomatous polyps												
• Diverticula: definition, classifications, causes, complications												
• oesophageal carcinoma												
• peptic ulceration: sites, aetiology												
• gastric carcinoma: aetiology, complications, complications of gastrectomy												
• gall stones, obstructive jaundice												
• pancreatitis: causes and effects of acute and chronic pancreatitis												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

SYSTEM SPECIFIC PATHOLOGY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
Dermatological diseases • Burns: classification, assessment of depth and extent, complications • Skin cancer in general: classification and aetiology • Melanoma: classification, staging												
Lymphoreticular System • Splenic function • Splenectomy: indications, complications, precautions • Lymphoma: classification, prognoses												

PRINCIPLES OF SURGERY–IN–GENERAL

E2

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
1. PERIOPERATIVE CARE												
Assessment of Fitness for Surgery • Preoperative assessment and risk scoring systems • Laboratory testing and imaging												
Management of Associated Medical Conditions • Organ specific diseases • Issues related to medications • General factors												
Preparation for Surgery • Informed consent • Pre-medication • Risk management												
Principles of Anaesthesia • General anaesthesia • Local anaesthesia • Regional anaesthesia												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

PRINCIPLES OF SURGERY–IN–GENERAL

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
Monitoring of the Anaesthetised Patient • Non-invasive monitoring • Invasive monitoring												
Care of the Patient Under Anaesthesia • Positioning of the patient in surgery • Avoidance of nerve injuries												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

PRINCIPLES OF SURGERY–IN–GENERAL

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
2. POSTOPERATIVE MANAGEMENT AND CRITICAL CARE												
Anaesthetic Management • Postoperative monitoring • Ventilatory support • Pain control • Intravenous drug delivery												
Metabolic and Nutritional Support • Fluid & electrolyte management • Nutrition in the surgical patient												
Postoperative Complications • General surgical complications • Respiratory failure • Acute renal failure • Systemic inflammatory response syndrome (SIRS) Multiple organ dysfunction syndrome (MODS)												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

PRINCIPLES OF SURGERY–IN–GENERAL

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
3. SURGICAL TECHNIQUE AND TECHNOLOGY												
Surgical Wounds • Classification of surgical wounds • Principles of wound management • Pathophysiology of wound healing • Scars and contractures												
Surgical Technique • Principles of safe surgery • Incisions and wound closure • Diathermy and laser • Sutures and ligature materials • Basic surgical instruments												
Surgical Procedures • Minor surgical procedures • Day care surgery • Principles of anastomosis • Endoscopic surgery and laparoscopy												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

PRINCIPLES OF SURGERY–IN–GENERAL

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
Tourniquets in the Operating Theatre • Indications for tourniquet use • Tourniquet application • Effects and complications of tourniquets												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

PRINCIPLES OF SURGERY–IN–GENERAL

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
4. MANAGEMENT AND LEGAL ISSUES IN SURGERY												
Evidence Based Surgical Practice • Decision making in surgery • Statistics • Principles of research and clinical trials • Critical evaluations of surgical innovations												
Management Aspects of Surgical Practice • Clinical audit • Clinical governance • Medico-legal aspects of surgery												
Communication Skills • Psychological effects of surgery • Communication skills in medicine and surgery • Working in teams • Breaking bad news • Dealing with conflict • Management of crises												
Medical Litigation • Avoidance and management of errors • Ethics and medical negligence												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

PRINCIPLES OF SURGERY–IN–GENERAL

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
5. CLINICAL MICROBIOLOGY												
Surgical Microbiology • Sources of surgical infection												
Prevention of Infection • Principles of asepsis and antisepsis												
Modern Antibiotic Usage • Commonly used antibiotics • Selecting the right antibiotic • Antibiotic resistance												
Surgery in Hepatitis and HIV Carriers • Blood-borne viruses • Universal precautions • Surgical precautions • Immunisation • Management of sharps injuries												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

PRINCIPLES OF SURGERY–IN–GENERAL

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
6. EMERGENCY MEDICINE AND MANAGEMENT OF TRAUMA												
Pathophysiology of Trauma • Shock and cardiovascular physiology • Metabolic response to injury • Adult respiratory distress syndrome (ARDS)												
Initial Assessment of the Trauma Patient • Principles of pre-hospital care • Major incident triage • Clinical assessment and scoring systems • Resuscitation after trauma												
Management of the Unconscious Patient • Brain injuries • Assessment and resuscitation of the comatose patient												
Traumatic Wounds • Principles of management • Gunshot and blast injuries • Stab wounds • Human and animal bites												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

PRINCIPLES OF SURGERY–IN–GENERAL

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
Management of Skin Loss • The wound • Skin grafts • Skin flaps												
Traumatic Oedema and Compartment Syndrome • Pathogenesis and physiology • Diagnosis and treatment												
Environmental Emergencies • Hypothermia • Heat exhaustion • Management of a radiation incident												
Miscellaneous • Acute loss of vision • Red eye: injury and infection • Needle-stick injuries												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

PRINCIPLES OF SURGERY–IN–GENERAL

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
7. PRINCIPLES OF SURGICAL ONCOLOGY												
Epidemiology of Common Cancers • Epidemiology studies and cancer registration • Common cancers												
Screening Programmes • Screening for cancers: breast, cervical, prostate, colorectal												
Clinico-Pathological Staging of Cancer • Staging and grading cancer • Clinical staging • Pathological staging												
Principles of Cancer Treatment • The role of surgery • Radiotherapy • Chemotherapy • Hormone therapy • Immunotherapy												
Palliative Care • The palliative care team • Pain and other symptoms												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

SURGICAL SPECIALTIES: CARDIOTHORACIC

E3

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
CARDIOTHORACIC SURGERY												
Haemodynamic Control • Haemodynamic principles • Cardiovascular homeostasis • Pharmacological haemodynamic control												
Cardiac Surgery • Surgical disorders of the heart vessels and heart valves • Cardio-pulmonary bypass												
Thoracic Trauma • Pathophysiology of thoracic trauma • Presentation, assessment and management • Specific thoracic injuries												
Thoracotomy and Chest Drainage • Assessment and Preparation • Indications for thoracotomy • Chest drainage and pericardiocentesis												

SURGICAL SPECIALTIES: CARDIOTHORACIC

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
Surgical Disorders of the Lung • Lung cancer • Other indications for lung resection												
Complications of Thoracic Operations • General complications • Specific complications												
Pneumothorax and Empyema Thoracis												

SURGICAL SPECIALTIES: GENERAL SURGERY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
GENERAL SURGERY ***A. Abdomen***												
Abdominal Trauma • Penetrating abdominal trauma • Blunt abdominal trauma • Assessment and management of abdominal trauma • Specific organ injuries												
Common Abdominal Problems • Abdominal pain • Abdominal masses • The acute abdomen												
Abdominal Emergencies • Intestinal obstruction • Peritonitis and abdominal and pelvic abscess • Gastrointestinal haemorrhage												
Abdominal Hernia • Inguinal hernia • Femoral hernia • Incisional hernia • Rare hernias												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

SURGICAL SPECIALTIES: GENERAL SURGERY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
Intestinal Fistulas • Classification of intestinal fistulas • Assessment and management												
Gastrointestinal Stomas • Gastrostomy • Ileostomy • Colostomy												
Surgery of the Spleen • Splenic disease and injury • Treatment of splenic disease and injury • Post-splenectomy sepsis												

SURGICAL SPECIALTIES: GENERAL SURGERY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
GENERAL SURGERY ***B. Upper Gastrointestinal Surgery***												
Diagnosis of oesophageal disorders												
Specific oesophageal disorders (including gastro-oesophageal reflux disease, motility disorders, oesophageal carcinoma, oesophageal diverticulum and oesophageal foreign body)												
Peptic ulcer disease												
Carcinoma of the stomach												

SURGICAL SPECIALTIES: GENERAL SURGERY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
GENERAL SURGERY ***C. Hepatobiliary and Pancreatic Surgery***												
Jaundice												
Gall stones and gall bladder disease												
Acute pancreatitis												
Chronic pancreatitis												
Carcinoma of the pancreas												
Benign and malignant biliary strictures												
Portal hypertension and ascites												

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SURGICAL SPECIALTIES: GENERAL SURGERY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
GENERAL SURGERY ***D. Colorectal Surgery***												
Clinical presentation of colorectal and anal disease												
Surgical disorders of the colon and rectum • Ulcerative colitis and Crohn's disease • Colorectal cancer • Diverticular disease • Faecal incontinence • Rectal prolapse												
Surgical disorders of the anus and perineum • Pruritus ani • Fissure-in-ano • Haemorrhoids • Fistula-in-ano • Anorectal abscess • Carcinoma of the anus • Pilonidal sinus and abscess												

SURGICAL SPECIALTIES: GENERAL SURGERY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
GENERAL SURGERY ***E. Breast & Endocrine Surgery***												
Common Breast Disorders • Breast lumps • Breast pain • Breast cysts • Nipple discharge • Gynaecomastia												
Breast Carcinoma • Risk factors • Pathology • Diagnosis • Treatment • Breast reconstruction												
Surgery of the Thyroid Gland • Indications for surgery in thyroid disease • Thyroid cancer (types and management) • Complications of thyroidectomy												

SURGICAL SPECIALTIES: GENERAL SURGERY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
Parathyroid Disorders • Calcium metabolism • Clinical presentation of hypercalcaemia • Investigation of hyperparathyroidism • Management of hyperparathyroidism												
Adrenal Disorders and Secondary Hypertension • Causes of hypertension • Conn's syndrome • Phaeochromocytoma												
Endocrine Disorders of the Pancreas • Insulinoma • Gastrinoma • Neuroendocrine tumours • Other rare endocrine tumours												

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SURGICAL SPECIALTIES: GENERAL SURGERY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
GENERAL SURGERY ***F. Vascular Surgery***												
Arterial Surgery • Peripheral vascular disease and limb ischaemia • Arterial embolism and acute limb ischaemia • Arterial aneurysms • Carotid disease • Renovascular disease • Arterial trauma												
Venous Disorders of the Lower Limb • Venous insufficiency and varicose veins • Venous ulceration • Deep venous thrombosis and pulmonary embolism												
Lymphoedema												

SURGICAL SPECIALTIES: GENERAL SURGERY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
GENERAL SURGERY ***G. Organ transplantation***												
• Basic principles of transplant immunology												
• Clinical organ transplantation												
• Organ donation and procurement												
• Immunosuppression and prevention of rejection												

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SURGICAL SPECIALTIES: ORAL AND MAXILLOFACIAL SURGERY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
ORAL AND MAXILLO-FACIAL SURGERY												
Maxillo-facial Trauma • Classification of facial fractures • Presentation of maxillo-facial fractures • Assessment and investigation • Treatment of facial fractures												
Common Conditions of the Face Mouth & Jaws												
Principles of Soft Tissue Repair of Mouth Face Head & Neck												

SURGICAL SPECIALTIES: NEUROSURGERY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
NEUROSURGERY												
Neurological Trauma • Head injuries • Spinal cord injuries • Paralytic disorders • Nerve disorders												
Surgical Disorders of the Brain • Clinical presentation of the intracranial mass • Tumours of the nervous system • Epilepsy • Congenital and developmental problems												
Intracranial Haemorrhage (Subarachnoid, Intracerebral, Subdural, extradural and intraventicular)												
Brain Stem Death • Diagnosis and testing for brain stem death • Principles of organ donation												
Surgical Aspects of Meningitis • General features of meningitis • Surgical considerations												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

SURGICAL SPECIALTIES: NEUROSURGERY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
Rehabilitation • The rehabilitation team • Pain management • Rehabilitation												

SURGICAL SPECIALTIES: OTORHINOLARYNGOLOGY AND NECK SURGERY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
Ear, Nose & Throat Disorders • Inflammatory disorders of the ear, nose and throat • Foreign bodies in the ear, nose and throat												
Common Neck Swellings • Congenital and rare swellings • Inflammatory swellings • Head & neck cancer												
Salivary Gland Disorders • Infections and inflammation of the salivary glands • Tumours of the salivary glands • Stones of the salivary glands • Miscellaneous conditions												
Eye Surgery • Trauma to the eye • Common eye infections												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

SURGICAL SPECIALTIES: OTORHINOLARYNGOLOGY AND NECK SURGERY

The syllabus <u>does not</u> include the following specialist areas:

1. Rigid endoscopy
2. Flexible nasendoscopy and examination of the post nasal space
3. Suction under endoscopic control of surgical cavity
4. Endoscopic sinus surgery
5. Antral washout in the management of acute sinusitis
6. Myringotomy and grommet insertion: middle ear procedure, myringoplasty, mastoid surgery, stapedectomy
7. Incision/drainage of conchal haematoma
8. Biopsy of the nose and nasopharynx
9. Simple polypectomy
10. Principles of rhinoplasty
11. Drainage of septal haematoma
12. Submucous resection of the nasal septum
13. Reduction of turbinates

SURGICAL SPECIALTIES: PAEDIATRIC SURGERY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
PAEDIATRIC SURGERY												
Principles of Neo-natal & Paediatric Surgery • History and physical examination of the neonate and child • Maintenance of body temperature • Assessment of respiratory and cardiovascular function • Metabolic status • Fluids, electrolytes and the metabolic response • Vascular access												
Correctable Congenital Abnormalities • Congenital abnormalities of the GI tract • Congenital heart disease • Abdominal wall defects • Diaphragmatic hernia • Neural tube defects • Urological abnormalities												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

SURGICAL SPECIALTIES: PAEDIATRIC SURGERY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
Common Paediatric Surgical Disorders • Pyloric stenosis • Intussusception • Inguinal hernia and hydrocele • Undescended testes • Torsion of the testes												
Orthopaedic Disorders of Infancy and Childhood • Gait disorders • Hip problems • Knee disorders • Foot disorders												

SURGICAL SPECIALTIES: PLASTIC AND RECONSTRUCTIVE SURGERY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
Burns • Classification and pathophysiology • Initial assessment and management • Treatment including secondary surgery • Burns of special areas (i.e. face, eyes, hands, perineum)												
Soft Tissue Infections												
Principles of Hand Trauma (tendon, nerve, nail bed)												
Hand Disorders • Dupytren's disease • Carpal tunnel syndrome												
Benign Skin Lesions												
Malignant Skin Lesions (basal cell carcinoma, squamous cell carcinoma, malignant melanoma)												
Principles of Skin Cover • Split skin grafts • Full thickness skin grafts • Local flaps • Distant flaps • Free transfer flaps												
Principles of Microvascular Surgery												
Wound Healing												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

SURGICAL SPECIALTIES: TRAUMA AND ORTHOPAEDIC SURGERY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
TRAUMA & ORTHOPAEDIC SURGERY												
Skeletal Fractures • Pathophysiology of fracture healing • Classification of fractures • Principles of management of fractures • Complications of fractures • Management of joint injuries												
• Common fractures and joint injuries**:** upper limb • Clavicle fractures • Dislocated shoulder • Humeral, radial & ulnar shaft fractures • Fractures of neck of humerus (conservative & operative) • Internal fixation of olecranon fracture • Management of supracondylar fracture of elbow • Aspiration of elbow • Scaphoid fractures • Phalangeal fractures												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

SURGICAL SPECIALTIES: TRAUMA AND ORTHOPAEDIC SURGERY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
• Common fractures and joint injuries: lower limb • Femoral, tibial & fibula shaft fractures • Dislocated hip • Fractures of neck of femur including fixation & hemiarthroplasty • Tibial plateau fractures • Aspiration of knee												
• Common fractures and joint injuries: trunk, pelvis and vertebral column												
Soft Tissue Injuries and Disorders • Nature and mechanism of soft tissue injury • Management of soft tissue injuries, including compartment syndrome												
Common Disorders of the Extremities • Disorders of the hand, including trigger finger, ganglion, carpal tunnel syndrome and Dupytren's Disease • Disorders of the foot												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

SURGICAL SPECIALTIES: TRAUMA AND ORTHOPAEDIC SURGERY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
Degenerative and Rheumatoid Arthritis • Osteoarthritis • Rheumatoid arthritis • Other inflammatory conditions • Surgical treatment of joint diseases												
Infections of Bones and Joints • Osteomyelitis • Other bone infections												
Locomotor pain • Low back pain and sciatica • Pain in the neck and upper limb												
Bone Tumours and Amputations • Primary bone tumours • Metastatic bone tumours • Amputations												
General • Imaging techniques e.g. MRI, CT, bone scan, ultrasound • Neurophysiological investigations												

N.B. – The knowledge level prescribed for each item is cumulative, i.e. level 3 implies that knowledge levels 1-3 should be covered.

SURGICAL SPECIALTIES: UROLOGY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
UROLOGY												
Urological Trauma • Renal, ureteric, bladder, urethral, penile and scrotal												
Urinary Tract Infections and Calculi												
Haematuria Classification, aetiology and assessment												
Tumours of the kidney, bladder, prostate and testis												
Urinary Tract Obstruction • Urinary retention • Disorders of the prostate												
Pain and Swelling in the Scrotum • Scrotal skin conditions • Non malignant testicular swellings • Inflammatory conditions • Testicular torsion • Testicular tumours												

SURGICAL SPECIALTIES: UROLOGY

	Part 1			Part 2			Clinical			Oral		
	L1	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**	**L1**	**L2**	**L3**
Chronic Renal Failure • Dialysis • Principles of transplantation												
Aspects of Pelvic Surgery • Gynaecological causes of acute abdominal pain (e.g. ovarian cyst, ectopic pregnancy, carcinoma) • Pelvic inflammatory disease • Disorders of urinary continence												

E4 COMMUNICATION SKILLS

Communication skills will be assessed using observed behaviour during role-play in a variety of simulated clinical situations. The standard of performance will be that expected of a basic surgical trainee exiting the grade. Clinical scenarios will be based on the syllabus, but candidates may need to indicate the limits of their knowledge, competence and authority.

DURING THE ASSESSMENT EXERCISES THE CANDIDATE WILL BE EXPECTED TO:

Exhibit sensitivity to the needs of the individual patient/relative* during any consultation by:

- Treating each patient with respect and courtesy.
- Establishing a suitable rapport by demonstrating clear, honest and empathetic communication.
- Taking into account ethnicity, cultural, age and disability factors.
- Responding appropriately to verbal and non-verbal cues given by the patient.
- Taking an holistic approach to the patient and/or relatives.
- Listening to the patient's account.

Exhibit a professional approach to a situation. "Professional" in this context can be taken to mean an approach that is calm, measured and is not judgemental, paternalistic or patronising; does not seek to impose the doctor's own beliefs and values and encourages shared decision making. Typical challenges could include:**

- Dealing with a variety of emotional responses by the patient and/or relatives.
- Dealing with a variety of pre-existing emotional states on the part of the patient and/or relatives.
- Dealing with patients/relatives from a wide variety of cultural/religious and ethnic backgrounds.
- Dealing appropriately with questions and situations that are beyond the level of competence of the candidate.
- Dealing with time constraints.
- Dealing with complaints appropriately

SPECIFIC EXERCISES MAY REQUIRE THE CANDIDATE TO:

Demonstrate an ability to communicate accurate information in an appropriate manner to patients and/or relatives in typical clinical situations such as:

- Obtaining informed consent for procedures that the candidate is able to perform personally.
- Conveying bad news such as an unfavourable outcome, unsatisfactory care or poor prognosis.
- Explaining the relevance, process, risk/benefits and possible impact of investigations in the context of a clinical situation.
- Explaining a diagnosis or differential diagnosis.
- Explaining options available including the process, risks and benefits of each and the option not to treat.

- Explaining uncertainties of diagnosis, outcome or prognosis.
- Explaining the opportunities available for further information including a second opinion.
- Involving the patient in decision making to the level that they wish.
- Checking for understanding and summarising at appropriate intervals.
- Using this feedback to regulate the pace and content of the consultation.

Demonstrate an ability to obtain a focussed medical history with relevant key points, in a variety of clinical situations, appropriate to the clinical case i.e. fit for purpose. During such an exercise an ability to elicit the patient's concerns, ideas and expectations would be required.
Situations might include:

- Taking a brief history from a patient in the outpatient department or ward.
- A consultation with the relative of the patient.

Demonstrate an ability to convey appropriate information to colleagues and other healthcare professionals in an appropriate manner, to a satisfactory standard and using a variety of methods. These could include:

- Verbal communications such as case presentations, to colleagues.
- Written communications such as medical records.
- Investigation request forms.
- Clinical letters to medical colleagues.
- Telephone communication.

Demonstrate the ability to use background information and that gathered during a consultation to formulate an appropriate response. This could include:

- Discussing a management plan with a patient, relative or colleague
- The ability to summarise information appropriately

***** Relative is understood to include partners, carers and "significant others"
****** Professional Values are defined in the curriculum and *Good Medical Practice*