<table>
<thead>
<tr>
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<th>No. of Questions X Marks</th>
<th>Full Mark</th>
<th>Pass Mark</th>
<th>Time</th>
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<td>Service Specific</td>
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<td>100</td>
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<td>3 hrs.</td>
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(Examination Scheme)

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1. Basic & Applied

1.1 Applied Anatomy
- The common congenital abnormalities and their management on the basis of embryology
- Major vessels, nerves, their course and effects of their injuries
- The muscular system and clinical presentation and management of their injuries
- Gross anatomy of the brain and important centers
- The anatomy of the chest wall and rib cage
- The anatomy of the breast and its lymphatic drainage
- Bronchial divisions, blood supply, lymphatic drainage and lobes of the lung
- Blood supply, venous drainage and lymphatic drainage of oesophagus, stomach, duodenum, small intestine and large intestine
- Detail anatomical knowledge of hepato biliary and pancreas
- Describe the anatomy, vascular supplies, lymphatic drainage of kidney and course of the ureter
- The blood supply, venous drainage, nerve supply and lymphatic drainage of the urinary bladder
- Gross anatomy of the female genital organs
- The histology of the all parts of body and understand the function of tissue and organs as well as growth, degeneration and repair

1.2 Applied physiology/ critical care
- Functions of all the organs of the body
- Acid base balance, fluid and electrolytes balance, nutrition, ventilatory management and metabolic response to trauma and sepsis.
- Interpret blood gas results
- Acute respiratory distress syndrome and its management.
- Criteria for brain death.
- Conditions leading to pulmonary embolism and its management, ICU monitoring and implications of trauma, sepsis and shock in a surgical patient

1.3 Surgical pathology
   Knowledge of the principles of pathology and microbiology, virology in context of surgery including inflammation, infection, neoplasm, response to tissue injury, disturbance of growth, degeneration process, repair and regeneration. Should be able to describe both macroscopic and microscopic features of all specimens related general surgery

1.4 Immunology, genetics.
   Basic principles of immunology and genetic and its application in general surgery

2. General
- Clinical trials, evidence based medicine, principle of genetic disorder, surgical audit, counseling, communication and ethical issues in surgical practice and research methodology, national health policy, community based rehabilitation of
physically disables persons, continuous professional development and national drug policy.
- Operating theater technique, sterilization, diathermy, sutures, use of antibiotics
- Appropriate investigations and interpret the result, imaging techniques
- Knowledge of disaster management, accident and injury prevention, national drug policy,

3. Principles of surgery
Detail knowledge of following:
- Blood transfusion, its indication and complications
- Blood products and its substitute
- Describe and manage
- Common skin conditions like boil, furunculosis, abscess, eryseplas, melanoma, cysts, keloid, and ulcers of different types, compartment syndrome
- Recognize degrees of burn and its management
- Pre and post operative management of general surgical conditions
- Bacterial, fungal, viral, and parasitic infection in relation to surgical condition
- Surgical complications of HIV infection and universal precautions, soft tissue tumours, minimally invasive surgery, recent advancement of surgery

4. Surgical management of medical condition
- Such as diabetes, thyrotoxicosis, hypothyroidism, hyper parathyroidism, portal hypertension, cardiac temponad, principles of chemotherapy, radiation in oncology

5. Surgical specialty
5.1 Head and neck
- Head injury and its management
- Management of diseases of salivary gland, tongue oral cavity, indications of tracheostomy, benign and malignant conditions of thyroid, parathyroid, cyst around the neck

5.2 Cardiovascular system
The exposure of major vessels, embolectomy, arterial injury, limb amputation and varicose veins

5.3 Breast
- Management of both benign and malignant conditions of the breast, staging of breast cancer, sentinel lymph node biopsy, breast conservation surgery

5.4 Thorax
- Management of chest trauma, pleural effusion, empyema, pneumothorax

5.5 Abdominal wall
- The congenital conditions, hernias, desmoid tumour

5.6 Abdominal cavity
- Knowledge of peritonitis, peptic ulcer and its complication, gastric cancer, duodenal diverticula, bowel obstruction, colorectal cancer, inflammatory bowel disease, irritable bowel syndrome, intestinal polyps, diverticular disease both upper and lower GI bleeding and its management.

5.7 Hepato-biliary, spleen and pancreas
- Liver infection, trauma, benign and malignant tumours.
- Congenital conditions of biliary tract, gall stone, bile duct stone, bilary injury, carcinoma gall bladder, cholangio carcinoma, acute pancreatitis, chronic pancreatitis, benign and malignant tumours of the pancreas
- Indications of splenectomy and its post operative complications

5.8 Urology
- Congenital condition of urinary tract, injury, urinary tract infection, management of renal stone, hydronephrosis, benign and malignant conditions of both upper and urinary tract, benign enlargement of prostate, bladder stone,

5.9 External genitalia
- Fracture penis, phimosis and paraphimosis, stricture urethra, carcinoma of penis, peyronie’s disease, hydrocoel, testicular torsion, testicular tumour,

5.10 Perineum
- Anal fistula, haemorrhoid, anal fissure, pilonidal sinus, anal cancer

6. Operative surgery

6.1 Nervous system
- Bur hole for extradural haemtoma, skull traction nerve repair and nerve transplant

6.2 Respiratory system
- Tracheostomy, Laryngiostomy, thoracotomy

6.3 Breast and endocrines
- Simple and radical mastectomy, lumpectomy, thyroid and parathyroidectomy, adrenalectomy

6.4 Cardiovascular
- Exposure of major vessels, amputation, varicose vein surgery

6.5 Gastrointestinal system
- All types of GI surgery (including liver and pancreatic resection, partial and total splenectomy) except organ transplant

6.6 Genitourinary system
- Exposure of the kidney, ureter, bladder, cystoscopy, pylolithotomy, nephrolithotomy, ureterolithotomy, nephrectomy, cystolithotomy, perinephric abscess, open prostatectomy, scrotal and testicular operation

6.7 Plastic
- Skin graft, simple cleft lip repair, release of simple burn contracture

6.8 Musculoskelital system
- Skin and bone traction, drainage of acute osteomyelitis, debridement of compartment syndrome

6.9 Superficial and deep parotidectomy

6.10 Miscellaneous
- Endotracheal intubation, CVP line insertion, Final needle aspiration and trucut needle biopsy, cardio-pulmonary resuscitation

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Model questions

1. Define shock. Classify shock according its etiology. Discuss the pathophysiology of septic shock. Outline the management of septic shock. 1+2+3+4

2. Discuss the pathophysiology acute small bowel obstruction. 10

3. Outline the management of high output intestinal fistula. 5

4. Discuss the management of flail chest. 5

5. Outline the indications and contraindication of breast conservation in breast carcinoma 10