



**INTEGRAL
UNIVERSITY**



INSPIRING EXCELLENCE

**INTEGRAL INSTITUTE OF MEDICAL
SCIENCES & RESEARCH
(IIMSR)**

**DEPARTMENT
OF
SURGERY**



PhD. Entrance Syllabus

Session: 2024-25

Alhandre
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**INTEGRAL INSTITUTE OF MEDICAL SCIENCES & RESEARCH
PhD. ENTRANCE SYLLABUS-2024
GENERAL SURGERY**

I. GENERAL SURGERY

1. Historical Aspect and Development of Surgical Science.
2. Introduction to Surgery – Basic Surgical Principles.
3. Medical Sociology, Doctor-Patient relationship, Family adjustments in disease, Organizational behaviors, conflict resolution.
4. Surgical Ethics
5. Sterile Precautions
6. Theatre Safety
7. Audit in Surgery
8. Clinical Trials and Statistics
9. Computers in Surgery
10. Day Care Surgery
11. Metabolic and Endocrine Response to Trauma
12. Immuno-Biology: (an overview) – Role of Prostaglandins, Thromboxane and Leukotrienes in Surgery.
13. Shock
14. Haemorrhage and Haemostasis
15. Bleeding Disorders and Blood Transfusion
16. Fluid and Electrolyte Balance
17. Critical care of Surgical Patient and Monitoring of Surgical Patient.
18. Surgical Nutrition
19. Anaesthesia and Pain Management
20. Wounds, wound infection, Tissue repair and scars
21. Surgical Infection
22. Nosocomial Infection
23. Surgical Manifestations of Tuberculosis
24. Surgical conditions of skin and sub-cutaneous tissue.
25. Ulcer, Sinus, Fistulae
26. Surgical Complications in Diabetic Patients.
27. Organ Transplantation.
28. BURNS.
29. Concepts of Essential Drugs and Rational use of Drugs
30. Consumer Protection
31. O.T. Designs, Technologies and Equipments
32. Advances in Imaging Technologies
33. ONCOLOGY
 - a) Principles of Surgery in Oncology
 - b) Chemotherapy in Malignancy
 - c) Radiotherapy
 - d) Immunobiology and Immunotherapy of Neoplastic Diseases.
 - e) Neoplasm of GIT, GUT, CVT, Endocrinal Glands and Soft Tissues
34. FUNGAL AND PARASITIC DISEASES
 - a. Mycetomas
 - b. Ascariasis
 - c. Guinea worm
 - d. Echinococcus Granulosus



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- e. Filariasis
- f. Taenia Solium
- g. Taenia Saginata
- h. Giardia Intestinalis

II. FACE, NECK, CHEST

- 1) Mouth, Tongue, Jaw
- 2) Pharynx, Larynx
- 3) Eye and Orbit
- 4) Nose and Paranasal Sinuses
- 5) Ear
- 6) Salivary Gland Disorders
- 7) Swelling in the Neck Region
- 8) Breast

9) ENDOCRINOLOGY

- a. Thyroid
- b. Parathyroid; Calcium, Phosphorus Metabolism
- c. Adrenals
- d. Pituitary Gland

10] TRAUMATIC SURGERY

- a. Accident and Emergency Surgery – (Multiple Injury Patient: Assessment and Management)
- b. Disaster Management and Mass Casualties
- c. Blast and Missile Injury
- d. Head Injury
- e. Thoracic Injuries
- f. Abdominal Injuries
- g. Genito Urinary Injuries
- h. Hand Injuries
- i. Vascular Injuries
- j. Maxillo – Facial Injuries
- k. Peripheral Nerve Injuries
- l. Urinary Calculi
- m. Renal Transplantation.

III] G. I. TRACT AND ABDOMEN

- a. Development of GIT
- b. Manifestation of GIT Diseases
- c. Acute and Chronic Abdomen; Abdominal Compartment Syndrome
- d. Oesophagus – GERD, Motility Disorders, etc.
- e. Stomach, Duodenum
- f. Small and Large Bowel; Appendix, Inflammatory Bowel disease
- g. Rectum and Anal Canal; Peri-anal Region
- h. Liver, Spleen, Pancreas, Gall – Bladder, Bile – duct.
- i. Portal Hypertension
- j. Peritoneum, Mesentery, Omentum



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- k. Retro peritoneal space
- l. Upper and Lower GIT Bleeding
- m. Abdominal wall, Hernias, Umbilicus
- n. Anostomosis
- o. Upper GI Endoscopy, Colonoscopy
- p. Laparoscopic Surgery
- q. Hepatic resection and liver Transplantation.

IV] UROLOGY

- a. Development of Kidney, Ureter
- b. Urinary Symptomatology
- c. Investigations of Urinary System
- d. Surgical conditions of Kidney.
- e. Developmental Defects and Diseases of Ureter
- f. Developmental conditions, diseases and disorders of urinary bladder
- g. Surgical conditions of Bladder
- h. Surgical conditions of Prostrate
- i. Surgical conditions of Seminal Vesicles
- j. Urethra, Penis
- k. Testis and Scrotum
- l. Ac. Renal Failure
- m. Genito-urinary Tuberculosis
- n. Urinary Diversion
- o. Endoscopy in Urology
- p. Obstructive Uropathy

V) SUPERSPECIALITY

A] PLASTIC + RECONSTRUCTIVE

- a. Reconstruction of Congenital Defects
- b. Skin Grafts and Flaps
- c. Reconstructive Surgery in Leprosy.

B] PAEDIATRIC SURGERY

- a. Management of Neonatal Surgical Conditions.
- b. Neo-natal Intestinal Obstruction
- c. Rotation of Gut, its anomalies and management.
- d. Congenital anomalies of Esophagus, Stomach and Duodenum
- e. Neo-natal Jaundice
- f. Hirschsprung's Disease
- g. Ano-rectal malformation
- h. Paediatric Solid Tumours
- i. Anomalies of GUT and its management.
- j. Developmental Anomalies of Skull and Spine and its management.

C] CARDIO-VASCULAR-THORACIC



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- a. Chest Wall
- b. Disorders of Pleura, Lung, Bronchus and Mediastinum
- c. Diaphragm
- d. Surgical Aspects of Congenital Heart Diseases
- e. Surgical Aspects of Acquired Heart Diseases
- f. Surgical Conditions of Heart and Blood Vessels
- g. Surgically Correctable Hypertension
- h. Pulmonary Embolism
- i. Fat Emboli Syndrome
- j. ARDS
- k. Cardio-Pulmonary Resuscitation
- l. Surgery for Pulmonary Lesions
- m. Carcinoma Lung
- n. Mediastinal Tumors including Thymic Tumors.
- o. Myocardial Revascularisation
- p. Lymphatic System and its Disorders
- q. Peripheral Vascular Diseases
- r. Venous Disorders
- s. Acute Limb Ischaemia and Thrombolysis
- t. Aneurysms
- u. Thoracic Outlet Syndrome
- v. Vascular Malformations

D] NEUROSURGERY

- a. Cranium disorders
- b. Tumours of Brain and Spinal Cord
- c. Management of Raised I.C.P.
- d. Hydrocephalus
- e. Meningocele, Meningomyelocele, Encephalocele
- f. Brachial Plexus and its Disorders
- g. Cervical Plexus and Sympathetic and Para Sympathetic Disorders.

REFERENCE BOOKS

1. Bailey & Love's Short Practice of Surgery – 24th Edition
2. Principles of Surgery – Schwartz - 8 th Edition
3. Text Book of Surgery – Sabiston - 17th Edition
4. Maingot's Abdominal Operations – Vol 1, Vol 2
5. New Surgical Companion – Ian Airs
6. Oxford Text Book of Surgery
7. Smith's General Urology
8. Surgery of the Anus Rectum and Colon – John Goligher
9. Hamilton Bailey's – Emergency Surgery – 11th Edition
10. Pye's Surgical Handicraft
11. Surgery of Liver and Biliary Tract – Blumgart
12. Peripheral Vascular Disease – Allen Baker and Hyne's
13. Peripheral Vascular Diseases - Abela



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14. Venous Disorders – Cockett and Dodd
15. Farquharson's Text Book of Operative Surgery
16. Mastery of Surgery – Bakar
17. Zollinger's Atlas of Surgical Operations
18. Rectum and Anal Canal – Gabril
19. Surgery of the Pancreas – Carter
20. Campbell's Urology
21. Glenn's Urologic Surgery - Graham
22. Cancer, Principles and Practice Oncology - De Vita
23. Moss – Radiation Oncology
24. Clinical Oncology - Abelott
25. Thoracic Surgery – Pearson, Deslaurier's
26. Recent Advances in Surgery – Indian / Taylor
27. General Thoracic Surgery - Thomas W. Shields
28. Vascular Surgery – Davies
29. Text book of Neuro Surgery - Ramnath and Tondon
30. Current Therapy in Plastic Surgery – Mc Carthy
31. Paediatric Surgery – Ashcraft Holder
32. Plastic Surgery – Mathes
33. Dermo Surgery and Cosmetology – Sawant
34. Mercer's Text book of Orthopaedics
35. Camphell Operative Orthopaedics
36. Watson Jones Text book of Orthopaedics
37. Telind's Text book of Gynaecology
38. Shaw's Text book of Gynaecology
39. Clinical Opthomology – Kanski
40. Lee Mc Gregors Synopsis of Surgical Anatomy
41. Text Book of Anatomy – Hollinshnd
42. Clinical Oriented Anatomy – Moore K.L.
43. Anatomy as a Basis for Clinical Medicine – Hall Craggs
44. Physiological Basis of Medical Practice – Best & Taylors
45. Principles of Physiology – Robert M. Berne
46. Surgical Physiology – Smith
47. Boyd's Surgical Pathology
48. Illingworths Surgical Pathology
49. Pathologic Basis of Diseases – Kamar, Abbas, Fausto
50. Robbins Pathologic Basis of Diseases – Ramsi S. Cotran.
51. Clinical Diagnosis and Management by Laboratory Methods – Henr