



SRM
UNIVERSITY
(Under section 3 of UGC Act 1956)



MS General Surgery

Curriculum and Syllabus 2015

Branch Code: 51

SRM Medical College Hospital & Research Centre

SRM University

SRM Nagar, Kattankulathur

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S.NO	CONTENT	PAGE NO
1	GOALS AND OBJECTIVES	04
2	COURSE OVERVIEW.....	05
3	SYLLABUS.....	08
4	TEACHING SCHEDULE.....	12
5	MAINTENANCE OF LOGBOOK	14
6	THESIS	15
7	SCHEME OF EXAMINATION	17
8	EXAMINATION AND EVALUATION	18
9	MODEL QUESTION PAPER	22
10	RECOMMENDED BOOKS & JOURNALS	26

M.S (GENERAL SURGERY)

1.A.GOALS

The goal of MS course in Surgery is to produce a competent surgeon who:

- Has acquired the competence pertaining to surgery that is required to be practiced in the community and at all levels of health care system
- Has acquired the skills to manage the patients of trauma effectively.
- Has acquired skill in effectively communicating with patient and his attendants.
- Has the desired surgical skills to independently operate on elective and emergency cases
- Is aware of the latest developments in the field of surgery is oriented to principles of research methodology
- Has acquired skills in educating medical and paramedical professionals.

B.OBJECTIVES

At the end of the MS course in surgery, the student should be able to

- practice the specialty of surgery in keeping with the principles of professional ethics
- recognize and identify the various surgical problems
- institute diagnostic, therapeutic, rehabilitative and preventive measures to provide holistic care to the patient
- take detailed history, perform full physical examination and make clinical diagnosis, perform relevant investigative and therapeutic procedures
- interpret important imaging and laboratory results
- Independently perform basic surgical procedures
- manage surgical trauma emergency efficiently
- Demonstrate empathy and human approach towards patients and their families.

- demonstrate communication skills of a high order in explaining management and prognosis, providing counseling and giving health education to patients, families and communities,
- develop skills as a self-directed learner, recognize continuing educational needs, use appropriate learning resources, and critically analyze relevant published literature in order to practice evidence-based surgery, facilitate learning of medical/nursing students, practicing physicians, paramedical health workers and other health providers as a teacher/trainer
- organize and supervise the desired managerial and leadership skills

2. COURSE OVERVIEW

Duration of the Course

The period of certified study and training for the Post-Graduate MS GENERAL SURGERY shall be Three Academic years (six academic terms). Each academic term shall mean six months training period.

Commencement of Academic Session

The academic session for the Post-Graduate shall commence from May/June of the Academic Year.

Date of Examination

The students admitted up to May/June of the academic year shall be registered for that academic year and shall take up their Final Third Year regular examination in April/October of the academic year after completion of 3 years / 36 months.

Number of Examinations

The University shall conduct not more than two examinations in a year, for any subject, with an interval of not less than 4 and not more than 6 months between the two examinations.

Attendance

All students joining the postgraduate training programme shall work as full time residents during the period of training, attending not less than 80% (eighty percent) of the training during each calendar year, and will be given full time responsibility, assignments and participation in all facets of the educational process.

The period of training for obtaining the degrees shall be three completed years including the period of examination.

3. Themes and topics (SYLLABUS)

Components of the Postgraduate curriculum

- Theoretical knowledge
- Practical and clinical skills
- Thesis skills
- Attitudes including communication skills
- Training in research methodology

Training Programme

- The training given with due care to the postgraduate students in the recognized institutions for the award of M.S. General Surgery degree shall determine the expertise of the specialist produced as a result of the educational programme during the period of stay in the institution.
 - A. Every institution undertaking postgraduate training programme shall set up an academic cell or a curriculum committee, under the chairmanship of a senior faculty member. Which shall work out the details of the training programme in each specialty in consultation with other department faculty staff and also coordinate and monitor the implementation of these training programmes.
 - A. The training programmes shall be updated as and when required, the structured training programme shall be written up and strictly followed, to enable the examiners to determine the training undergone by the students and the Medical council of India inspectors to assess the same at the time of inspection.
 - B. Postgraduate students shall maintain a record of the programme undergone during the period of training.
 - During the training for degree to be awarded, there shall be proper training in basic medical science related to the disciplines concerned;

during the training for the degree to be awarded in basic medical sciences, there shall be training in allied subjects related to the disciplines concerned. In all postgraduate training programmes, both clinical and basic medical sciences, emphasis to be laid on preventive and social aspects.

- The postgraduate students shall be required to participate in the teaching and training programme of undergraduate students and interns.

- Training in medical Audit, management, health economics, health information system, basics of statistics, exposure to human behavior studies, knowledge of pharmaco-economics and introduction to non-linear mathematics shall be imparted to the postgraduate students.

- Implementation of the training programmes for the award of various postgraduate degree shall include the following:-

(i) Basic Medical Sciences

Lectures, seminars, Journal clubs, Group discussions, participation in laboratory and experimental work, and involvement in research studies in the concerned specialty and exposure to the applied aspects of the subjects relevant to clinical specialties.

(ii) Clinical Disciplines

In-services training, with the students being given graded responsibility in the management and treatment of patients entrusted to their care; participation in Seminars, Journal Clubs, Group discussions, Clinical meetings, Grand Rounds and Clinico-Pathological conferences; practical training in diagnosis, medical and surgical treatment; training in the basic medical sciences, as well as in allied clinical specialties. OPD: History and work up of all cases and presentation to the consultants.

This includes all the special clinics

1. Diabetic Foot & Vascular Surgery Clinic
2. Breast Clinic
3. Thyroid Clinic

Documentation, OPD card and register completion and maintenance

Indoors : OP and emergency

Ward : History and work up of all cases. Daily evening rounds and attending to emergencies whenever need arises. Preparation of weekly, monthly and annual statistics

DETAILED SYLLABUS

GENERAL SURGERY INCLUDES SURGICAL PATHOLOGY AND APPLIED ASPECTS OF BASIC MEDICAL SCIENCES

During the training period, efforts are always made that adequate time is spent in teaching the students skill required for performing basic surgical procedures and making them accustomed to handling difficult trauma and critical patients.

Theory

- Diagnostic and interventional radiology.
- Preparing a patient for surgery
- Anaesthesia and pain management
- Acute life support and critical care
- Fluid and Electrolyte balance and transfusion products
- Nutrition
- Wounds, tissue repair and scars
- Basic surgical skills and anastomosis
- Principles of laparoscopic surgery
- Wound Infection
- Sterile precautions and theatre safety
- Parasitic infections.
- AIDS.
- Principles of robotic surgery
- Transplantation
- Cyst, ulcers and sinus
- Principles of Oncology
- Day case Surgery
- An approach to surgical audit
- Surgical ethics
- Clinical trials and statistics

- **Plastic &Reconstructive surgery:** Skin grafting, Flaps-Principles of Soft Tissue Coverage, Hypospadias, and Principles of micro vascular surgery with special reference to vessel repair.
- Burns
- Accident and Emergency Surgery
- Warfare injuries
- Craniocerebral trauma (Head Injury), Spinal Injuries
- Elective Neurosurgery- Brain tumours, spinal cord tumours, hydrocephalus, spinal dysraphism
- lip & palate
- Maxillofacial injuries
- Oral and Oropharyngeal cancer
- **Disorders of salivary glands-** Anatomy,clinical features, investigations, Examination, Medical and surgical treatment of stone, infection and Tumour in the salivary glands
- **Pharynx, larynx and neck-**Anatomy and physiology clinical features, investigations, diagnosis and emergency treatment of airway obstruction and tumours
- **Thyroid-** Development and anatomy, physiology and investigations,medical and surgical treatment of thyroid problems
- **Parathyroid and adrenal glands-** Surgical concept of parathyroid and adrenal disorders,investigations, role of surgery, management of various cancers
- **Breast-** Surgical anatomy, investigations, anomalies, management of benign and malignant breast disorders.
- **Thorax-**Surgical anatomy and physiology, investigations, role of surgery inManagement of chest trauma and surgical oncology as applied to chest surgery
- **Cardiac Surgery-**Role of surgery in cardiac diseases, investigations, Management
- **Arterial disorders-**Nature of occlusive arterial diseases, acute arterial occlusion, severely ischaemic limb, aneurysm diseases, clinical features, investigations and treatment options
- **Venous disorders-**Venous anatomy, physiology, varicose veins ,DVT, Venous insufficiency and ulcers
- **Lymphoedema-**Functions, development, causes, clinical features, investigations and treatment

- **Oesophagus**-Anatomy, physiology, clinical features, investigations and treatment of benign and malignant disorders
- **Stomach and duodenum**-Anatomy and pathophysiology, clinical features, investigations, management of benign and malignant disorders
- **Liver**-Anatomy, clinical features, investigations management of liver trauma, infections, tumours
- **Spleen**- Anatomy, Pathology, clinical features investigations and management of splenic trauma
- **Gall bladder and bile ducts**-Surgical anatomy, physiology, clinical features, investigations and treatment of benign and malignant disorders
- Pancreas
- Peritoneum, Omentum, mesentery and retroperitoneal space
- Small and large intestines
- Intestinal Obstruction
- Vermiform Appendix
- Rectum
- Anus and anal canal
- Hernias, umbilicus and abdominal wall
- Genitourinary system: Urinary symptoms, investigation of the urinary tract and anuria, kidney and ureters, urinary bladder ,prostate and seminal vesicles, urethra and penis, testis and scrotum
- Postoperative care
- **Paediatric Surgery**: Preparation of Paediatric Surgery patients pre & post Operative care, Soft tissue tumour, Causes of Neonatal Obstruction, Anorectal malformation, Hypertrophic Pyloric stenosis, Undescended Testis, Hirschsprung's disease, Oesophageal atresia with tracheo-oesophageal fistula, Wilms tumour and Malrotation of gut

Practical

- **History and examination:** History taking and examinations as relevant to General Surgery.
- **Monitoring Skills:** Temperature recording, capillary blood sampling, arterial blood sampling, venous blood sampling, cardio-respiratory monitoring, pre & post operative patient monitoring and management accordingly.
- **Therapeutic Skills:** Tracheostomy, chest tube insertion, suturing, catheterization, Ryle's tube insertion, airway management, nasogastric feeding, endotracheal intubation, cardiopulmonary resuscitation, venepuncture and establishment of vascular access, administration of fluids, blood, blood components, parenteral nutrition, common dressings, abscess drainage and basic principles of rehabilitation and bed sores management,
- **Diagnostic Skills:** Interpretation of X-rays/CT/MRI, ultrasonographic abnormalities and laboratory tests.
- **Surgical Skills:** Observation of general layout and working of OT, understanding the importance of management and maintaining the sanctity of OT, scrubbing, working and sterilization of OT instruments, equipment seg. electrocautery etc., Laparoscopic Set, shifting of OT patients, pre operative work up of patients, acquisition of basic surgical skills to perform minor/medium surgeries independently (suprapubic cystostomy, Urethral Dilatation, Cystolithotomy, Varicocele, Orchidectomy, Ureterolithotomy, Excision of Cyst & I&D, Excision of Breast Lump, Surgery of Hydrocele, appendectomy, Herniotomy, Hernia repair, umbilical hernia, Exploratory laparotomy for perforation, Haemorrhoidectomy, Fistulectomy, Fissurectomy Circumcision and Skin grafting
- Assist in major surgeries, handling of all types of surgical emergencies, post Operative management of patient in recovery, ICU and wards.

4. TEACHING SCHEDULE

FIRST YEAR

(a) General Surgery		---	7 Months
(b) Anaesthesia		---	1 Month
(c) Radiology and Radio-therapy		---	1 Month
i. Ortho	1 month	}	3 Months
ii. Traumatology	2 months		
	Total		12 Months

SECOND YEAR

(a) General Surgery		---	7 Months
(b) Neuro Surgery		---	1 Month
(c) Plastic Surgery		---	1 Month
(d) Paediatric Surgery		---	1 Month
(e) Cardio Thoracic		---	1 Month
(f) Urology		---	1 Month
	Total	---	12 Months

THIRD YEAR

(a) General Surgery		---	9 Months
(b) Intensive Coaching		---	3 Months
	Total	---	12 Months

IN WARD:

- ❖ Work Pattern will be that of an intern.
- ❖ Attending to routine ward work
- ❖ Examination of patients in Op department and inpatients.
- ❖ Taking detailed history, physical examination, making a provisional diagnosis.
- ❖ Taking part in investigations laboratory invasive and non invasive.
- ❖ Attending different departments to conduct these investigations in person.
- ❖ Present cases during grand rounds
- ❖ Discuss management of cases of clinical interest.

IN OT:

- ❖ Learn basic techniques in surgery, start; learning as 2nd assistant then progress to 1st assistant and in final year perform surgical procedures independently under supervision.
- ❖ During admission days, attend to all surgical patients who require admission both elective and emergency. Assist all emergency surgical procedures, both minor and major.
- ❖ Attend lecture classes as prescribed.
- ❖ Present cases of clinical interest in clinical society meetings, organize unit symposium and seminar on a regular basis.
- ❖ Start work on a Thesis, topic being decided in consultation with the unit head.
- ❖ At the end of second year send atleast two papers for publication in reputed journals.

- ❖ To attend surgical conference national as well as regional and present papers in these conferences.
- ❖ Maintain a log book from day one of work done on a day to day basis attested by supervising surgeon.
- ❖ Attend inter departmental meetings like radiology, oncology and pathology department
- ❖ Weekly Journal Clubs, Monthly Symposium, Tumour board meet, Radiological and Pathological meet are organized.
- ❖ Monthly once Internal Assessment Theory Examination is conducted

5.MAINTENANCE OF LOG BOOK

- Every Post-Graduate student shall maintain a record of skills he has acquired during the three year training period certified by the various Heads of Departments he has undergone training.
- The students should also be required to participate in the teaching and training programme of undergraduate students.
- In addition, the head of the Department shall involve their Post-Graduate students in Seminars, Journal Clubs, Group discussions and participation in clinical, Clinico-pathological conferences.
- Every Post-Graduate student should be encouraged to present short title papers in conferences and to make improvements on it and submit them for publication in reputed medical journals. Motivation by the heads of Departments is essential in this area to sharpen the research skills of the Post-Graduate students.

- The Head of the Department shall scrutinise the Log Book once in every three months.
- At the end of the course, the student should summarise the contents and get the Log Book certified by the Head of the Department.
- The Log Book should be submitted at the time of practical examination for the scrutiny of the Board of Examiners.

5.1 It is preferable that a post graduate student during the course to present one poster presentation and /or to present one paper at a national /state conference and /or to present one research paper which can be published/accepted for publication/sent for publication during the period of his/her postgraduate studies.

6.THESIS

Every student registered as post graduate shall carry out work on an assigned research project under the guidance of a recognized post graduate teacher, the result of which shall be written up and submitted in the form of a thesis.

Work for writing the Thesis is aimed at contributing to the development of a spirit of enquiry, besides exposing the student to the techniques of research, critical analysis, acquaintance with the latest advances in medical science and the manner of identifying and consulting available literature. Thesis shall be submitted at least six months before the theoretical and clinical / practical examination.

The thesis shall be a bound volume of a minimum of 50 pages and not exceeding 75 pages of typed matter (Double line spacing and on one side only) excluding certification, acknowledgements, annexure and bibliography.

Thesis should consist of

- (a) Introduction
- (b) Review of literature
- (c) Aims and objectives
- (d) Material and methods
- (e) Result
- (f) Discussion
- (g) Summary and conclusion
- (h) Tables
- (i) Annexure
- (j) Bibliography

Four copies of thesis shall be submitted six months prior to the commencement of the theory examinations on the date prescribed by the Controller of Examinations of this University. The thesis should be approved by the Professor of that branch and the same has to be forwarded to the Controller of Examinations, by the head of the department through the Dean of the college.

Two copies in addition are to be submitted as an electronic version of the entire thesis in a standard C.D. format by mentioning the details and technicalities used in the C.D. format.

The thesis shall be examined by a minimum of three examiners; one internal and two external examiners, who shall not be the examiners for Theory and clinical; and on the acceptance of the thesis by two examiners, the student shall be allowed to appear for the final examination.

EVALUATION OF THESIS :

ACCEPTED / NOT ACCEPTED

No marks will be given

7. SCHEME OF EXAMINATION - UNIVERSITY EXAMINATION PATTERN

Theory Examination

Theory	Title	Duration in Hours	Maximum marks
Paper - I	Applied Basic Sciences	3	100
Paper - II	Surgery including Surgical Pathology	3	100
PAPER - III	Surgery including Traumatology	3	100
PAPER - IV	Recent Advances	3	100
Total			400

Clinical examination

	No. of cases	Duration	Marks
Long case	One	One hour	80
Short cases	Three	45 minutes	120
Total			200

Practicals:

	Marks
1. Post OP Ward Rounds	40
2. Specimens	20
3. X - Rays	20
4. Instruments	20

Total	100

Overall Total	300

MARKS QUALIFYING FOR A PASS

MARKS QUALIFYING FOR A PASS	MAXIMUM MARKS	QUALIFYING FOR A PASS 50% MARKS
Theory Examination	400	200
Practical Including clinical and Viva voce examination	300	150

A student shall secure not less than 50% marks in each head of passing, which shall include 1.Theory 2.Practical including clinical and viva voce examination.

* “The postgraduate medical students are required to pass theory and practical examinations separately. An examinee should obtain minimum 40% marks in each theory paper and not less than 50% marks cumulatively in all the four papers for Degree examination to be cleared as “Passed” at the said Degree examination”

**As per Medical Council of India notification date 03.09.2014 and the same approved in the 28th Academic council meet of SRM University held on 23/03/2015.*

8. EXAMINATION AND EVALUATION

(1) EXAMINERS

(a) All the Post Graduate Examiners shall be recognised Post Graduate Teachers holding recognised Post Graduate qualifications in the subject concerned.

(b) For all Post Graduate Examinations, the minimum number of Examiners shall be four, out of which at least two (50%) shall be External Examiners, who shall be invited from other recognised universities from outside the State and other two will be internal examiners for M.S.

(c) Under exceptional circumstances, examinations may be held with 3 (three) examiners provided two of them are external and Medical Council of India is

intimated the justification of such action prior to publication of result for approval. Under no circumstances, result shall be published in such cases without the approval of Medical Council of India.

(d) The guidelines regarding appointment of examiners are as follows:-

1. No person shall be appointed as an examiner in any subject unless he/she fulfills the minimum requirements for recognition as a Post Graduate teacher as laid down by the Medical Council of India and has teaching experience of 8 (Eight) years as a Lecturer / Assistant Professor out of which he has not less than 5 (Five) years teaching experience after obtaining Post Graduate degree. For external examiners, he should have minimum three years experience of examinership for Post Graduate diploma in the concerned subject. Out of internal examiners, one examiner shall be a Professor and Head of Department or Professor.
2. There shall be at least four examiners in each subject at an examination out of which at least 50% (Fifty percent) shall be external examiners. The external examiner who fulfils the condition laid down in clause - 1 above shall ordinarily be invited from another recognised university, from outside the State: provided that in exceptional circumstances examinations may be held with 3 (three) examiners if two of them are external and Medical council of India is intimated with the justification of such examination and the result shall be published in such a case with the approval of Medical council of India.
3. An external examiner may be ordinarily been appointed for not more than three years consecutively. Thereafter he may be reappointed after an interval of two years.
4. The internal examiner in a subject shall not accept external examinership for a college from which external examiner is appointed in his subject.
5. The same set of examiners shall ordinarily be responsible for the written, practical or part of examination.
6. There shall be a Chairman of the Board of paper - setters who shall be an external examiner and shall moderate the question papers.
7. The Head of the Department of the institution concerned shall ordinarily be one of the internal examiners and second internal examiner shall rotate after every two year.

(2) Number of candidates

The maximum number of candidates to be examined in Clinical / practical and Oral on any day shall not exceed six for M.S. degree examination.

3) Number of examinations

The university shall conduct not more than two examinations in a year, for any subject, with an interval of not less than 4 and not more than 6 months between the two examinations.

(4) Master of Surgery (M.S.) General Surgery

M.S. examination shall consist of Thesis, Theory Papers, and clinical/Practical and Oral examinations.

(a) Thesis

Every candidate shall carry out work on an assigned research project under the guidance of a recognised Post Graduate Teacher, the result of which shall be written up and submitted in the form of a Thesis.

Work for writing the Thesis is aimed at contributing to the development of a spirit of enquiry, besides exposing the candidate to the techniques of research, critical analysis, acquaintance with the latest advances in medical science and the manner of identifying and consulting available literature. Thesis shall be submitted at least six months before the theoretical and clinical / practical examination.

The thesis shall be examined by a minimum of three examiners; one internal and two external examiners, who shall not be the examiners for Theory and Clinical; and on the acceptance of the thesis by two examiners, the candidate shall appear for the final examination.

(b) Theory

(i) There shall be four theory papers.

(ii) Out of these one shall be of Basic Medical Sciences and one shall be of recent advances.

(iii) The theory examinations shall be held sufficiently earlier than the Clinical and Practical examination, so that the answer books can be assessed and evaluated before the start of the Clinical/Practical and Oral examination.

(c) Clinical / Practical and Oral

(i) Clinical examination for the subjects in Clinical Sciences shall be conducted to test the knowledge and competence of the candidates for undertaking independent work as a specialist/Teacher, for which candidates shall examine a minimum one long case and three short cases.

(ii) The Oral examination shall be thorough and shall aim at assessing the candidate knowledge and competence about the subject, investigative procedures, therapeutic technique and other aspects of the speciality, which form a part of the examination.

A candidate shall secure not less than 50% marks in each head of passing which shall include (1) Theory, (2) Practical including clinical and viva voce examination.

Evaluation of Answer Scripts

The answer books will be valued by two examiners. One of the two examiners will be from this university and the other will be from any other university. The Average of the two marks secured by the candidate will be taken into account. If the difference between two marks exceeds 20%, the answer scripts shall be valued by the third examiner. The average of the nearest two marks shall be considered as the final mark.

9. MODEL QUESTION PAPER

MS General Surgery
Paper-I
Applied Basic Sciences

Times: 3 hrs

Max. Marks: 100

I. Answer all questions

II. All questions carry equal marks

I. Essay Questions

2 x 20 = 40

1. Discuss the Surgical Anatomy, including development of Thyroid and the Para thyroid glands.
2. Describe the surgical Pathology and spread of Renal Carcinoma.

II. Write notes on

10x 6 = 60

1. Discuss the Anatomy and Embryology of Kidney with reference to congenital anomalies.
2. Discuss Rotation of Gut and its anomalies.
3. Discuss the Blood Supply to the liver and its segmental anatomy.
4. Discuss Biochemical changes in Metabolic Acidosis.
5. Discuss the physiological changes that occur in a patient with 30% burns.
6. Discuss Renal Transplant Immunology.
7. Classify Soft - tissue Sarcomas and discuss the pathology.
8. Discuss pathophysiological changes in Portal Hypertension.
9. Discuss current drug treatment of AIDS.
10. Describe Gram - negative organisms that cause wound infection.

MS General Surgery
Paper-II
Surgery including Surgical Pathology

Times: 3 hrs

Max. Marks: 100

- I. Answer all questions
- II. All questions carry equal marks

I. Essay Questions 2 x 20 = 40

- 1. Discuss the Etiopathology, clinical features and management of Rectal Prolapse.
- 2. Classify Salivary Neoplasm's and discuss the management of Warthin's Tumour.

II. Write notes on 10 x 6 = 60

- 1. Describe in brief hypovolemic shock, its pathophysiology and management.
- 2. Describe pathology, clinical presentation and surgical management of carcinoma stomach.
- 3. Describe etiology and management of hydronephrosis
- 4. Elaborate pathology, clinical features, investigations and treatment of BHP
- 5. Describe development pathology, clinical features and management of APKD
- 6. Explain ANDI of breast
- 7. Compare Acute VS chronic arterial occlusion
- 8. Describe the management of deep burns
- 9. Describe general principles of management of blunt abdominal injury
- 10. Describe clinical features and management of liver abscess

MS General Surgery
Paper-III
Surgery including Traumatology

Times: 3 hrs

Max. Marks: 100

- I. Answer all questions
- II. All questions carry equal marks

I. Essay Questions 2 x 20 = 40

- 1. What is disaster management? How do you manage splenic trauma?
- 2. Discuss the Etiology, classification, pathophysiology and management of Entero Cutaneous Fistula.

II. Write notes on: 10 x 6 = 60

- 1. Describe the indications, techniques and complications of neck dissections.
- 2. Describe indications, techniques and complications of esophagectomies.
- 3. Enumerate types of and describe any one of the Liver resections
- 4. Enumerate the Complications of TPC with IPAA
- 5. Classification and management of Bile duct Injuries
- 6. Describe Thoracic outlet syndrome
- 7. How will you manage a case of Buerger's disease
- 8. Enumerate various Abdominal incisions and discuss their advantage and Complications
- 9. Describe the complications of Transurethral Prostate resection
- 10. Describe Damage control surgery

MS General Surgery
Paper-IV
Recent Advances

Times: 3 hrs

Max. Marks: 100

I. Answer all questions

II. All questions carry equal marks

I. Essay Questions

2 x 20 = 40

1. Clinical features, diagnosis and recent trends in management of early gastric malignancy.
2. Discuss the diagnosis, prognostic evaluation and treatment of acute pancreatitis.

II. Write notes on

10x 6 = 60

1. Describe the use of radio frequency in surgery
2. Discuss recent advances in the treatment of carcinoma breast.
3. What is N.O.T.E.S and its current status
4. Describe T.E.M.S
5. Give an overview of treatment of Ulcerative colitis
6. Discuss the recent advances in Treatment of varicose veins
7. Outline Uses and advantages of robotic surgery
8. Discuss the recent advances in abdominal compartment syndrome
9. Describe the latest concepts in the management of BHP
10. Describe the recent advances in management of carcinoma esophagus

10. RECOMMENDED LIST OF TEXTBOOKS & JOURNALS

TEXT BOOKS (Latest Edition)

1. Bailey and Love's Short Practice of Surgery - P.Ronan O Connell , Norman S Williams, Christopher J.K.Bulstrode. 26th Edition Hodder Arnold, 2013.
2. Sabiston Textbook of Surgery -2 volumes - Courtney M. Townsend, Jr., MD, R. Daniel Beauchamp, MD, B. Mark Evers, MD and Kenneth L. Mattox, MD. 19th Edition Saunders, 2012.
3. Principles of Surgery by SCHWARTZ - F. Brunicardi, Dana Andersen, Timothy Billiar, David Dunn, John Hunter, Jeffrey Matthews, Raphael E. Pollock. 10th Edition McGraw Hill, 2014.
4. Abdominal operation by Maingot - Michael ZinnerJr, Stanley Ashley. 12th Edition McGraw Hill, 2013.
5. Operative Surgery Charles Rob and Smith's - David Carter , R. C. G. Russell , Henry A. Pitt. 4rd Edition Chapman & Hall Publication, 1994.
6. Farquharson's Text book of Operative General Surgery - Margaret Farquharson, Brendan moran. 10th Edition Hodder Arnold, 2014.
7. New Aird's companion to Surgical Studies - Kevin G. Burnand, Young Anthony E.Jonathan D. Lucas, Brian Rowlands, John Scholefield. 3rd Edition Elsevier, 2005.
8. Walter & Israel General Pathology - J.B.Walter, Martin Israel. 7th Edition Churchill Livingston, 2010.

9. Last's Anatomy - Chummy S. Sinnatamby. 12th Edition Churchill Livingstone, 2011.
10. Clinical Pharmacology by Laurence -P. N. Bennett, Morris J. Brown. 11th Edition Churchill Livingstone, 2012.
11. Pharmacology and Pharmacotherapeutics - Satoskar, S. D. Bhandarkar. 23rd Edition Popular Prakashan, 2013.
12. Mastery of Surgery (two volumes) - Josef E. Fischer, K. I. Bland, Mark P. Callery. 6th Edition Lippincott, 2012.
13. Rosai and Ackerman's Surgical Pathology - Juan Rosai. 10th Edition Mosby, 2011.
14. Watson – Jones Fractures and Joint injuries - JN Wilson. 7th Edition BI Publication, 2009.
15. Hamilton Bailey's Emergency Surgery - Brian W. Ellis , Simon Paterson-Brown , Simon Paterson-Grown. 13th Edition Hodder Arnold, 2009.
16. Lee McGregor's Synopsis of Surgical Anatomy - Alexander Lee McGregor, Daniel Jakob Du Plessis. 12th Edition Varghese Publishing, 1986.
17. ASI textbook of surgery - Rabindra B srivasthava, Ahamad A Hai. 1st Edition Academic Publisher, 2003.

JOURNALS

1. British Journal of Surgery.
2. Annals of Surgery.
3. American Journal of Surgery.
4. Surgical Clinics of North America.
5. Diseases of Colon and Rectum.
6. Annals of Royal College of Surgeons.
7. Indian Journal of Surgery.

The greatest barrier to success is the fear of failures
- *Sven Goren Eriksson*