AMRITA
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Program
MCh PLASTIC SURGERY

(Revised with effect from 2016-2017 onwards)

Table of Contents

Objectives

At the end of the training period a candidate will be able to do independently and confidently not only all the minor and routine Plastic surgery procedures like repair of congenital deformities but also plan complicated surgical procedures like reconstruction with flap, pedicled, grafts etc.

Program Outcomes (PO)

PO1: Fundamental knowledge on the subject .
PO2: Effective communication skills.
PO3: Knowledge in professional ethics
PO4: Leadership qualities and team work.
PO5: Problem analysis and solving skills.
PO6: Basic knowledge on research methodology.
PO7: Higher technical skills and competencies.
PO8: Employability in various sections.

Program Specific Outcomes (PSO)

PSO1 : Knowledge of Basic principles in plastic surgery.
PSO2 : Knowledge in microsurgery, hand surgery, burns and cosmetic surgery.
PSO3 : Principles of transplantation and management of hand transplantation.
PSO4 : To acquire leadership quality and embrace team approach
PSO5 :Employabiltity as super specialist and setting up private practice.
PSO6 :Ability to innovate in the field of Plastic surgery

Syllabus Theory

1. Basis Sciences

Embryology of

- Head & Neck - face & neck
- Genitalia
- Hand & Upper extremity
- Lower limb
- Lymphatics & vascular system

Anatomy

- Surgical anatomy in general
- Arterial anatomy of – skin & integument- angiosomes
- Muscles
- Bones

- Brachial plexus & peripheral; nerves & dermatomes

Physiology of

- Nose
- Deglutition
- Speech
- Skin- biomechanical properties
- Heat regulation
- Transfusion
- Electrolyte, acid & base balance

Biochemistry

- Enteral, Parenteral & total parenteral nutrition

Pharmacology & Pathology

- Skin tumours
- Vascular malformations
- Burns –Pathophysiology
- Haemorrhage & Shock
- Wound repair & healing – Primary, secondary and contraction

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Microbiology & Immunology

- Hospital infections
- Wound infections
- Infection in burns
- Immunology in burns
- Transplantation biology
- Immunodeficiency states and plastic surgery

Genetics of

- congenital anomalies with reference to plastic surgery
- Metabolic disorders
- Genetic engineering in plastic surgery
- Molecular biology in relation to PS

General

- Legal aspects in plastic surgery
- Computers in plastic surgery
- Photography in Plastic surgery

2**. Plastic surgery**

Basic principles

a)General consideration:-

a) Definitions of plastic surgery
b) Primary principles of plastic surgery
c) Psychological aspects of plastic surgery
d) Plastic surgery in children surgical care in children
e) Care of emergencies
f) Anaesthesia in Plastic Surgery, Hypothermia ,Regional analgesia
g) Burns wounds, Bacteriology, repair and healing
h) Surgical instruments, suture material and surgical technique
i) Post Operative care, suture removal

j) Computers in plastic surgery

b). Skin
Normal anatomy & Histology

Free skin grafts :-

1. Definition
2. Classification:-

Auto grafts Homograft
Isografts, Heterograft

Type:

Epidermal
Split thickness
Full thickness

Special:

Reverdin's (pinch)
Postage stamps
Tunnel grafts
Hair Bearing grafts
Composite skin grafts
Hair transplantation
Preservation of skin graft
Keratinocyte culture
Skin substitutes

Mucosal grafts

Flaps and Tube Pedicles –

Fasciocutaneous flaps
Muscle & musculocutaneous flap
Composite flap
Perforator based flaps
Free flaps
Delay

c) Tissue expansion
d) Restoration of supporting tissue loss- grafts of fat, fascia, cartilage, bone & tendons by repair, graft
e) Transplantation of tissues – autografts, homograft, synthetic substitutes

f) Composite grafts – free pedicled tissue assemblies
g) Suture materials
h) Salvage of avulsed parts
i) Principles of microsurgery – microoneuro & micro vascular surgery.
j) Use of laser in plastic surgery
k) Mobilization of joints physical therapy & rehabilitation as applied to plastic surgery.

3. Scars – revision
   Keloids and hypertrophic /scars depressed sars & Dermabrasion
4. Principles of craniomaxillofacial surgery
5. Clefts lip & cleft palate
   - Pathological anatomy
   - Pathogenesis
   - Classification of cleft lip, palate and other Cranio facial clefts
   - Principles of management of craniofacial clefts
   - Surgical techniques of repair of cleft lip and palate
   - Primary repair
   - Secondary deformities & secondary correction
   - Adjuvant modalities in management of cleft lip and palate
6. Malformations of Pinna
   - Congenital & acquired
   - Partial loss
   - Deformities – preauricular fistula & appendages
   - Cauliflower ear, Bat ear, Cup ear
   - Hearing loss associated with Microtia
   - Investigations as audiometry to assess Speech evaluation & treatment
7. Occuloplastic surgery
   - Canthotomy
   - Tarsorraphy
   - Ectropion, entropion. Epicanthus,
   - Coloboma, Anophthalmia,
   - Blepharophimosis
   - Laceration of eye lids
   - Fracture of orbit
     Reconstruction of eye lids

- Contracted socket
- Ptosis
- Cosmetic blepharoplasty

8. Nose – general consideration
   - Congenital anomalies - Aplasia of nose
   - Septal dermoids
   - Meningocoele at nasion
   - Corrective procedures Rhinoplasty
   - Saddle nose
   - Columellar & alar reconstruction
   - Syphilitic & leprotic nose reconstruction

9. Lips cheeks & Jaws
   - Lip ectropion
   - Cancrum oris microstomia, macrostomia double lip, microchelia
   - Reconstruction of partial & total loss of lip

Cheeks: - Restoration of tissue lining only covers only Full thickness

Jaws : - Ankylosis of TM joint Tumours of the jaw

   - Principles of Orthognathic surgery.

10. Face : - Soft tissue injuries
   - fractures of facial bones including nasoethmoid complex fractures
   - Facial paralysis
   - Face lift and associated procedures
   - Reconstruction of facial tissues including bone after cancer excision.
   - Reconstruction of facial tissues including bone after cancer excision

12 Scalp reconstructions

11. The Neck:
   - Contractures
   - Webbed neck
   - Congenital cysts and sinuses of neck
   - Cervical lymph node dissection
   - Closure of tracheotomy opening
   - Reconstruction of cervical esophagus

12. Breast:
   - Congenital anomalies
   - Augmentation Mammoplasty
   - Reduction Mammoplasty
   - Mastopexy & correction of other deformities
   - Oncological concepts of cancer breast

- Reconstructive procedures of breast after mastectomy and Conservation therapy.

13. Abdomen:
    - Ventral hernia
    - Lipectomies
    - Body contouring surgeries
    - Pressure sore & paraplegic patient

14. Plastic surgery of Genoitourinary region:
    - Congenital absence of vagina
    - Recto Vaginal & Vesico vaginal fistula
    - Hypospadias
    - Ectopia vesicae & epispadias
    - Intractable urethral strictures
    - Urethral fistulae
    - Problem of inter sex

15. Upper limb :
    - Examination of hand
    - Congenital anomalies of hand & upper extremity
    - Hand injuries – soft tissue injuries & skin cover
        - Fractures of hand
        - Salvage of mutilated hand
        - Burns of hand including
        - Electrical burns
    - Brachial plexus injury
    - Contractures of hand
    - Reconstruction of thumb
    - Paralyzed hand
    - Reconstruction of leprosy hand

16. Cutaneous lesions:
    - Benign lesion & tumours
    - Pigmentary changes
    - Malignant tumours
    - Lymphoedema
    - lower limb
    - upper limb
    - genitalia – male & female
    - Vascular malformations

    Prosthesis in plastic surgery

17. Endoscopic plastic surgery

SYLLABUS PRACTICALS

Student may go to other centers inside or outside state to have an exposure to certain techniques and which are not routinely done in the center where they are undergoing

training. This will be for a period of 3 months in the beginning of the second year of the coure the centers will be chosen by the HOD of the particular departments and he/she will communicate to those centre to arrange for their visit, stay etc. The trainee will produce evidence for their training in those centre on their return.

COURSES

Course I (M5PL1)

CO1: Knowledge of Anatomy including embryology and Physiology pertaining to plastic surgery,
CO2: Medical Statistic pathology including microbiology and materia Medica, pertaining to plastic surgery,
CO3: To have the ability to identify various cosmetic problems and have ability to treat them,
CO4: To have the ability to diagnose and classify cleft lip, cleft palate and facial clefts and treat them accordingly.

Basic Sciences

Embryology of

- Head & Neck - face & neck
- Genitalia
- Hand & Upper extremity
- Lower limb
- Lymphatics & vascular system

Anatomy

- **Surgical anatomy in general**
- Arterial anatomy of – skin & integument- angiosomes
- Muscles
- Bones
- Brachial plexus & peripheral; nerves & dermatomes

Physiology of

- Nose
- Deglutition
- Speech
- Skin- biomechanical properties
- Heat regulation
- Transfusion
- Electrolyte, acid & base balance

Biochemistry

- Enteral, Parenteral & total parenteral nutrition

Pharmacology & Pathology

- Skin tumours
- Vascular malformations
- Burns –Pathophysiology
- Haemorrhage & Shock
- Wound repair & healing – Primary, secondary and contraction

.

Microbiology & Immunology

- **Hospital infections**
- **Wound infections**
- Infection in burns
- Immunology in burns
- Transplantation biology
- Immunodeficiency states and plastic surgery

Genetics of

- **congenital anomalies with reference to plastic surgery**
- **Metabolic disorders**
- Genetic engineering in plastic surgery
- Molecular biology in relation to PS

Course II (M5PL2)

CO1-To have the ability to identify and diagnose soft tissue injuries correctly and treat them accordingly
CO2: To have the ability to perform basic microsurgical procedures
CO3: To have the ability to identify and diagnose skeletal injuries of hand and treat accordingly

Definitions of plastic surgery
Primary principles of plastic surgery
Psychological aspects of plastic surgery
Plastic surgery in children surgical care in children
Care of emergencies
Anaesthesia in Plastic Surgery, Hypothermia ,Regional analgesia
Burns wounds, Bacteriology, repair and healing
Suturing methodology in plastic surgery
Management of crush injuries
Trauma and plastic surgery

Surgical instruments, suture material and surgical technique
Post Operative care, suture removal

Flaps and Tube Pedicles –

Fasciocutaneous flaps
Muscle & musculocutaneous flap
Composite flap
Perforator based flaps
Free flaps
Delay

Tissue expansion
Restoration of supporting tissue loss- grafts of fat, fascia, cartilage, bone & tendons by repair, graft
Transplantation of tissues – autografts, homograft, synthetic substitutes
Composite grafts – free pedicled tissue assemblies
Suture materials
Salvage of avulsed parts
Principles of microsurgery – microoneuro & micro vascular surgery.
Use of laser in plastic surgery
Mobilization of joints physical therapy & rehabilitation as applied to plastic surgery.

Computers in plastic surgery

Course III (M5PL3)

CO1: To have a basic understanding about organ transplantation
CO2: To have the basic ability to diagnose vascular injury and be able to repair the same
CO3: To be able to evaluate and diagnose a nerve injury and to repair the same
CO4: To have the ability to identify and diagnose skeletal injuries of foot and treat accordingly
CO5: To identify the extent of burns and to efficiently manage the patient according to the prescribed guidelines

Upper limb :

- **Examination of hand**
- **Congenital anomalies of hand & upper extremity**
- **Hand injuries – soft tissue injuries & skin cover**
    - Fractures of hand
    - Salvage of mutilated hand
    - Burns of hand including
    - Electrical burns
- Brachial plexus injury
- Contractures of hand
- Reconstruction of thumb
- Paralyzed hand

- Management of hypertrophic scars
- Management of keloids
- Reconstruction of leprosy hand

Plastic surgery of Genoitourinary region:

- **Congenital absence of vagina**
- Recto Vaginal & Vesico vaginal fistula
- Hypospadias
- Ectopia vesicae & epispadias
- Intractable urethral strictures
- Urethral fistulae
- Problem of inter sex
- Hymenoplasty

Course IV (M5PL4)

CO1: To have the ability to innovate and come up with advances in the field of plastic surgery
CO2: Be familiar with the recent advances in the field.
CO3: Be familiar with the current practices.

Knowledge of latest articles and publications in an international setting and the ability to prepare and present research papers in scientific conventions Knowledge of latest therapeutic modalities

Course V: Soft Skills (Course Code M5PL5) – Elective Course

CO1: Ability to conduct research work,
CO2: Competency to work as a team leader.
CO3: Effective communication with patients and relatives.
CO4: Attitude to be a lifelong learner and ethical practitioner.

EXAMINATION PATTERN

The M.Ch degree in plastic surgery should be awarded only after extensive assessment by competent and unbiased assessing the clinical and the theoretical knowledge and competence of the candidate. Postgraduate students registered for the postdoctoral course in Plastic Surgery shall be required to appear at the end of three years the final examination, which shall consist of:

THEORY : Clinical Competence
Practical / Operative, clinical and Viva voce : Clinical Competence

There shall be four theory paper, one paper out of these shall be on Basic Medical science and another paper on Recent Advances.

Paper I (Course Code M5PL1)

BASIC MEDICAL SCIENCES relevant to plastic surgery (the paper shall consist of TWO section. Section- A shall have question from Anatomy including embryology and Physiology pertaining to plastic surgery and section-B shall have questions from Medical Statistic pathology including microbiology and materia Medica, pertaining to plastic surgery

Paper II : (Course Code M5PL2)
Natural History, Diagnosis, Management and prognosis of conditions pertaining to plastic surgery.

Paper III: (Course Code M5PL3)
Trunk and Lower Limb

Paper IV: (Course Code M5PL4)
Recent Advances in plastic surgery

Practical Operative clinical and Viva Voce

PRACTICAL / OPERATIVE Examination shall consist of grand round of post operative or acutely ill patients, involving discussion on various operative special investigative procedures including instrumentation and intra operative and post operative management.

CLINICAL shall be in the form of an exhaustive discussion on not less than FOUR patients out of which at least one shall be a long case and others short cases. In one or more of these patients the candidates may be supplied either limited or all of the available information pertaining to given case provided that a candidates shall be required to come to a diagnosis based entirely on his \her clinical examination without any access to history or investigation results at least in one case.

VIVA VOCE examination shall be very wide ranging and every effort shall be made to examine a candidate in the various aspects of the subject including the sub specialties by making use of any material considered suitable by the Examiners.
Questions may be asked pertaining to the full texts of the paper/disseration, Log book and the theory answers papers of candidate

Hands on Training for MCh Plastic Surgery Trainees

During the three year training period it is envisaged that the trainees will have adequate exposure in patient evaluation and decision making, medical and surgical management of the cases, immediate post operative care and management of complications. Apart from these the trainees will be rotating to other ancillary units to get hands on training in relevant areas. They will also undertake intradepartmental audit activities and participate in clinical and basic science research projects. The details of the training will be listed below.

Patient evaluation and decision making

The areas where trainees will get hands on training include

a) out patient clinics
b) weekly planning sessions
c) speciality clinics
   lymphoedema
   head and neck cancer
   cleft and craniofacial
   Hand & Brachial plexus injuries

The trainees will be seeing all the new and follow up patients during the clinic posting. They will be always supervised by a senior qualified teacher and they will participate in discussions regarding the clinical problem and management plans. There will be a weekly planning session where all the trainees and teachers will be present and detailed presentations and discussion of all major cases seen during the week will be made. Towards the end of their training, i.e. the third year, the trainees will be encouraged to arrive at independent decisions, critically evaluated and supervised by the teachers. Special clinics catering to patients of lymphoedema, hand & brachial plexus injuries, cleft lip and palate, head and neck cancers, aesthetic surgery and burns are being run in the department and the trainees will take active participation in these clinics.

Surgical training

Laboratory training

The department runs regularly two hands on surgical training programmes

a) microvascular anastamotic techniques in small animals
b) flap harvest in cadavers

The trainees will be encouraged to participate in both during their first year itself.

Out station posting:

In the initial phase, until the department is fully developed in all subspecialities, candidate may be sent to centres elsewhere, either within Kerala or outside Kerala, but within India for a maximum period of three months to have more exposure in those subspecialities or special techniques and procedures

Operative training

The department has a very good surgical volume which includes the whole spectrum of plastic surgery. The trainees will be able to observe, assist and perform under supervision all these procedures in a graded manner. For this a log book will have to be maintained and at end of each semester of 6 months the trainee will sit with the consultants and the log book will be evaluated to see for the deficiencies. The minimum expected log book activity is given as below

Surgical procedures	YEAR 1	YEAR 2	YEAR 3
	A - PA- P	A - PA- P	A - PA-P

(***A*** *– Assisted* ***PA****- Performed with assistance* ***P*** *– Performed)*

Skin grafting			
Partial thickness	4 - 4- 10	0- 0 - 10	0- 0- 10
Full thickness	4- 4- 4	0- 0 - 6	0 0 6
Local small skin flaps	4 – 2 – 2	0 0 4	0 0 4
Regional flaps			
Head and Neck	6- 2 -0	2 - 4 4	2 2 10
Rest of the body	4 2 - 0	2- 2- 4	0 2 6
Free flaps			
Microvascular techniques			
Vessel preparation	10-10 -10	0- 0- 20	0- 0- 20
Anastomosis	30- 0- 0	10-20-0	5-15-20
Flap Harvest			
Soft tissue flaps	30-20-5	5-20- 15	5-10-20
Bone flaps	10- 0- 0	5- 5- 0	0- 0- 5
Hand Surgery			
Hand injuries	10- 5- 5	0-10 – 10	2-3-15
Contracture releases	5 - 5 - 0	2 – 5 – 3	0-5 - 5
Congenital defects	5 0 0	2 - 2 – 1	1- 2 2
Nerve decompression	3 - 3 – 2	0 3 5	0 3 5
Brachial plexus surgey	3 0 0	3 - 0 0	3 0 0
Lower limb trauma	10 -2 0	7- 3 2	4 -4 -4
Lymphoedema procedures	5 0 0	3 2 0	2 3 0
Aesthetic surgery			
Rhinoplasty	8 0 0	8 0 0	4 4 0
Liposuction	10 2 0	4 8 0	0 8 4
Abdominoplasty	10 0 0	6 4 0	0 6 4
Facelift/threadlift	2 0 0	2 0 0	2 0 0

Hair transplants	8	0	0	6	2	0	4	4	0
Blepheroplasty	4	0		4	0	0	4	0	0
Soft tissue fillers	4	0	0	4	0	0	4	1	0
Breast procedures	10	0	0	6	4	0	4	6	0
Cleft lip and palate									
Lip repair	20	0	0	15	5	0	5	12	3
Palate repair	10	0	0	5	5	0	3	5	2
Pharyngoplasty	5	0	0	3	2	0	2	3	0
Alveolar bone grafting	8	0	0	5	3	0	3	3	2
Rhinoplasty	5	0	0	5	0	0	3	2	0
Secondary revisions	5	0	0	5	0	0	3	2	0
Craniofacial procedures	5	0	0	5	0	0	5	0	0
Orthognathic surgery	5	0	0	5	0	0	5	0	0
Maxillo facial and facial injuries									
Simple fracture	10	2	0	8	4	0	2	8	2
Complex injuries	4	0	0	4	0	0	2	2	0
Breast reconstruction	6	0	0	6	0	0	4	2	0
Head and neck resection									
And reconstruction	20	0	0	15	5	0	5	15	0
Burns surgery									
Acute	10	0	0	5	5	0	0	10	0
Secondary procedures	10	0	0	8	2	0	4	6	0
Pressure sore reconstruction	10	0	0	8	2	0	2	8	0
Genital reconstructions	6	0	0	6	0	0	4	2	0

EVALUATION FORM FOR CLINICAL PRESENTATION

Name of the student:

Name of the faculty / Observer:

Date:

Sl No.	Items of observation during Presentation	Poor 0	Below average 1	Average 2	Good 3	Very good 4
1	Completeness of history and findings					
2	Clarity of presentation					
3	Assessment of defect/ problem					
4	Treatment plan					
5	Steps in execution of the plan					
6	Ability to defend diagnosis and plan					
7	Knowledge of the current and past literature					
	Grand Total					

MODEL CHECK-LIST FOR EVALUATION OF JOURNAL REVIEW PRESENTATIONS

Name of the student:

Name of the faculty / Observer:

Date:

Sl No.	Items of observation during Presentation	Poor 0	Below average 1	Average 2	Good 3	Very good 4
1	Article chosen was					
2	Extent of understanding of scope & Objectives of the paper of the candidate					
3	Whether cross reference has been consulted					
4	Whether other relevant publications consulted					
5	Ability to respond to questions on the paper / subject					
6	Audio – Visual aids used					
7	Ability to defend the paper					
8	Clarity of presentation					
9	Any other observation					
	Total Score					

MODEL CHECK-LIST FOR EVALUATION OF SEMINAR PRESENTATIONS

Name of the student:

Name of the faculty / Observer:

Date

Sl No.	Items of observation during Presentation	Poor 0	Below average 1	Average 2	Good 3	Very good 4
1	Whether other revelant publications Consulted					
2	Whether cross references Have been consulted					
3	Completeness of the Preparation					
4	Clarity of Presentaion					
5	Understanding the subject					
6	Ability to answer the questions					
7	Time Scheduling					
8	Appropriate use of Audio – Visual aids					
9	Over all Performance					
10	**Any other Observation**					
	Total Score					

MODEL CHECK-LIST FOR EVALUATION OF CLINICAL WORK IN WARD/OPD

Name of the student:

Name of the faculty / Observer:

Date

Sl No.	Items of observation during Presentation	Poor 0	Below average 1	Average 2	Good 3	Very good 4
1	Regularity of attendence					
2	Punctaulity					
3	Interaction with Colleagues And Supporting staff					
4	Maintainence of case records					
5	Presentation of cases during rounds					
6	Investigations work up					
7	Bedside Manners					
8	Rapport with patients					
9	Counseling Patient's relatives for blood donation or Postmortem andCase follow up.					
10	**Over all quality of clinical work**					
	Total Score					

CHECK LIST FOR EVALUATION OF TEACHING SKILL PRACTICE

Name of faculty / Observer:

Sl No.		Strong point	Weak point
1	Communication of the purpose of the talk		
2	Evokes audience interest in the subject		
3	The Introduction		
4	The sequence of ideas		
5	The use of practical examples and /or illustrations		
6	Speaking style (clear, monotonous, etc. specify)		
7	Attempts audience participation		
8	Summary of the main points at the end		
9	Ask questions		
10	Answer questions asked by the audience		
11	Rapport of the speaker with his audience		
12	Effectiveness of the talk		
13	Uses of AV aids appropriately		

LOG BOOK

Table 1: Academic activities attended

Name: Admission year:

College:

Date	Type of activity Specify Seminar, Journal club, Presentation, UG teaching	Particulars

LOG BOOK

Table 2: Academic Presentations made by the students

Name: **Admission year:**

College:

Date	Topic	Type of activity Specify Seminar, Journal club, Presentation, UG teaching

LOG BOOK

Table 3: Diagnostic and Operative procedures performed

Name: **Admission year:**

College:

Date	Name	I D No.	Procedure	Category O, A, PA, PI*

Key:

O – Washed up and observed
A – Assisted a more senior surgeon
PA – Performed procedure under the direct supervision of a senior surgeon
PI - Performed independently

Model Overall Assessment sheet

Name of the college:

Academic Year:

Sl No.	**Particulars**	Name of the student and Mean score								
		A*	**B***	**C***	**D***	**E***	**F***	**G***	**H***	**I***	**J***
1	Journal Review Presentations									
2	Seminars									
3	Clinical work in wards									
4	Clinical presentation									
5	Teaching skill practice									
	Total Score									

Note: Use separate sheet for each year.

Signature of the HOD:

Signature of the Principal:

The above overall assessment sheet used along with the logbook should form the basis for certifying satisfactory completion of course of study, in addition to the attendance requirement.

KEY:
Mean Score: Is the sum of all the score of checklists 1 to 7.
A,B,…. : Name of the trainees.

MODEL QUESTION PAPERS

TIME 3 HOURS
MAXIMUM MARKS 100

Paper I General Principles and Head and Neck

I Classify flaps according to their blood supply, giving three examples each. Discuss in detail the indications, anatomy and operative technique of pectoralis major flap. (30marks)

II Classify cleft lip and palate. Explain in detail the embryological development of the face ? (30marks)

III Write short note on: (10marks each)

A. Venous flaps.
B. The limberg and defour mental flaps
C. Palatal fistulas
D. Basal cell carcinoma

Paper II - Natural History, Diagnosis, Management and prognosis of conditions pertaining to plastic surgery.

I Describe in detail the origin, course, relatuions and supply of the ulnar nerve. What are the options for treatment of an ulnar nerve transaction at the level of mid arm, two year after the injury. (30marks)

II What are the pathophysiological changes thet occur after a severe burn ibjury? Discuss fluid management acutely for a patient with 50 % burns. (30marks)

III Write short note on: (10marks each)

A. The posterior interosseous flap
B. Classification of congenital deformities of the hand
C. Inhalational injury.

D. Artificial skin substitute

Paper III - Trunk and Lower Limb

I List the various methods of breast reconstruction and the advantages and disadvantages of each. Describe the anatomy of the pedicled TRAM flap. (30marks)

II Draw the cross section of the leg at the middle 3rd level. Describe the options for soft tissue cover of the tibia at this level. Discuss the advantages and disadvantages of microsurgical versus conventional reconstruction. (30marks)

III. Write short note on: (10marks each)

A. Ischial pressure sore
B. Reverse sural artery flap.
C. Venous ulcers of the leg.
D. Nipple reconstruction.

Paper IV - Recent Advances

I Define SIRS, MODS and sepsis. Discuss the management of a burns patient on ventilator with sepsis in a systematic manner. (30marks)

II Classify the materials used as implants, listing out the advantages and disadvantages of each. What are the complications associated with the silicone gel breast implant ? (30marks)

II Write short note on: (10marks each)

A Integra
B Propellar flaps
C Super microsurgery
D Anastomotic technique other than suturing.