Bachelor Of Physiotherapy (BPT) 3rd Year

SUBJECT: SURGERY & CLINICAL ORTHOPAEDICS (Total Hours- 130)
(Subject Code: BPT- 301)

A. Surgery

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A) GENERAL SURGERY
[50 hrs Didactic – 40 hrs + Clinical 10 hrs]

Syllabus

General Surgery (11hrs)
1] Effect of Anesthesia & surgical trauma…………… (1 hr)
2] Fluid, Electrolyte and Acid-Base disturbances – diagnosis and management ; Nutrition in the surgical patient ; Wound healing – basic process involved in wound repair, basic phases in the healing process, clinical management of wounds, factors affecting wound healing, Hemostasis – components, hemostatic disorders, factors affecting bleeding during surgery. Transfusion therapy in surgery – blood components, complications of transfusion ; Surgical Infections ; General Post – Operative Complications and its management …………[6 Hours]
2] Inflammation – acute & chronic-signs, symptoms, complications & management (1hr)
3] Wounds / ulcers – classification, healing process, management (2hrs)
5] Radical mastectomy – complications & management …………(1 hrs)
6] Amputation – types, sites, complications & management……….. (1hr)
7] Burn: Definition, Classification, Causes, Prevention, Pathological changes, Complications, Clinical Features and Management. Skin Grafts – Types, Grafting Procedures, Survival of Skin Graft ; Flaps – Types and uses of Flaps……….. [4 Hours]
Neuro Surgery ....... (6 hrs)
1. Head Injury – management (1hr)
2. Intra cranial & Spinal tumors (1hr)
3. Surgeries of Head & neck in neurosurgical conditions & post operative care (2hrs)

Cardio vascular – thoracic surgery .............. (7 hrs)
1] Surgical approach

E.N.T. Surgery .........................(5 hrs)
1. Upper respiratory track surgery & post operative care
2. Tracheostomy – indications, surgical approach & management
4. Surgical procedures in VII nerve palsy
5. Vertigo

Ophthalmic Surgery .................(1hr)
Surgeries for III, IV & VI cranial nerve palsy

Plastic Surgery .....................(10 hrs)
1. Skin grafts & flaps – Types, indications with special emphasis to burns, wounds, ulcers
2. Tendon transfers, with special emphasis to hand, foot & facial paralysis,
3. Keloid & Hypertrophied scar management
4. Reconstructive surgery of peripheral nerves
5. Micro vascular surgery

Clinical (10 hrs)
A] Evaluation / presentation and recording of one case each in burns, wound & ulcer, Head Injury case, peripheral vascular condition, post Radical mastectomy, post thoracic surgery, post abdominal surgery
B] Auscultation & its interpretation with special emphasis to Reading & interpretation of the X-ray chest.

OBSERVATION – one abdominal & one thoracic surgery & one surgery of skin graft / flap.

TEXT BOOKS
1] Under graduate Surgery by Nan
2] Bailey & Love’s short practice of Surgery – 21 st edn
3] Textbook of surgery by S. Das
B) ORTHOPAEDICS

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[80 hrs] – Didactic -55 hrs + Clinical – 25 hrs

Syllabus

1. Traumatology……………… [3 Hours]

2. Fractures and Dislocations of Upper Limb …………[6 Hours]

3. Fracture of Spine [4 Hours]

4. Fractures and Dislocations of Lower Limb ………… [5 Hours]
Fracture of Pelvis and Lower Limb - causes, clinical features, mechanism of injury, complications, conservative and surgical management of the following fractures:
4] Management of Metabolic disorders………… ( 2hr)
Osteoporosis, Osteomalacia, Rickets, Perthes disease, Slipped Capital Femoral, Epiphysis and Avascular Necrosis.

5] Brachial Plexus / Lumbo Sacral Plexus & Peripheral nerve injuries – sites, management ……………………..(3hrs)

6] Congenital And Acquired Deformities

10] Reconstructive surgery for bone lengthening………… (1hrs)
11] Reconstructive surgery in Polio & Cerebral Palsy …….. (2hrs)
12] Inflammatoiry/Infectious diseases of the bone & joints e.g. T.B, Osteomyelitis.. (2hrs)


14] Surgical intervention for Arthritis like O.A., RA, Ankylosing Spondylitis… (2hrs)
15] Reconstructive surgery in soft tissue lesions of Shoulder, Knee & Ankle… (3 hrs)
16] Aetiology of Back Pain & surgical management ...........(3 hrs)
17] Common Sports injuries / overuse injuries & management ………(2 hrs)
18] Joint Replacement surgeries……….. (2 hrs)
19] Hand injury & management ……………. (1hrs)
20] X-rays of extremities & spine …………. (1hrs)

CLINICAL (25 HRS)
1] Independent clinical orthopedic evaluation presentation & recording of
a] one acute soft tissue lesion [including nerve injury]
b] 2 cases of degenerative arthritis of extremity joint
c] 2 degenerative arthritis of spine
d] one case of acute P.I.D.
e] 2 chronic backaches
f] 1 post operative case of fractures of extremities
g] one traumatic paraplegia / quadriplegia

OBSERVATION –
At least 2 surgeries of # internal fixation, one knee/hip replacement & Reconstructive surgery of the tendons.

TEXT BOOKS
1) Adam’s outline of fractures – 8th edn
2) Adams outline of Orthopaedics – 8th edn
3) Apley’s textbook of Orthopaedics

SCHEME OF EXAMINATION IN THE SUBJECT – “SURGERY & ORTHOPAEDICS”
THEORY – 80 MARKS + I.A. 20 MARKS TOTAL – 100 MARKS

Theory Exam

Section A: Surgery
Q1. MCQ’s ................................................................. 10 Marks
Q2. Short Answer Questions (Any 3 out of 5)… 5 marks each……………… 15 Marks
Q3. Short Notes (Any 5 out of 6) ……… 5 marks each………………… 15 Marks

Section B: Orthopaedics
Q1. MCQ’s ................................................................. 10 Marks
Q2. Short Answer Questions (Any 3 out of 5)… 5 marks each……………… 15 Marks
Q3. Short Notes (Any 5 out of 6) ……… 5 marks each………………… 15 Marks

Practical Viva – 80 MARKS + I.A. 20 MARKS TOTAL – 100 MARKS
Practical Exam -
2] Plastic surgery – Theory ................................................................. 25 marks
3] Theory-in Orthopedics ................................................................. 50 marks
4] Ward exam in Clinical Orthopedics ................................. 50 marks
Total ------ 200 marks
10% of the average of the total marks to be considered as Internal assessment.
SUBJECT: GENERAL MEDICINE (Subject Code: BPT-302)

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Syllabus

A- CARDIO-VASCULAR & RESPIRATORY MEDICINE (29 hrs)

B-

1] Cardio-vascular diseases – (12 hrs)
   a) Hypertension – systemic, I.H.D. – Myocardial infarction, Arrhythmia – classification Valvular
   Heart Disease – i) Congenital ii) Acquired, Rheumatic Fever, Congenital Heart Disease, Infective Endo Carditis, Geriatric Cardio Vascular Problems & management, ECG – Normal & Variations due to ischemia & infarction

2] Diseases of the respiratory system (17 hrs)

B - NEUROLOGY (31 hrs)


I) Formation & Absorption
II) Status in Various Disorders
19] Sexually transmitted diseases (1hr)

C - General Medicine (30 hrs)

1] Disorders of Endocrine system (4hrs)
i) Diabetes (1hr)
ii) Thyroid, Pituitary & Adrenal conditions (2hrs)
iii) Calcium Metabolism (1hr)
2] Rhumatological Conditions (5 hrs)
i) Rheumatoid Arthritis (2hrs)
ii) S L E
iii) S S A (3hrs)
iv) Gout
v) Polymyositis
3] Geriatric Conditions (5 hrs)
i) Aging Process (1hr)
ii) Osteoporosis (1hr)
iii) General Health Care, Wellness Clinic (1hr)
iv) Hypertension (1hr)
4] Nutrition Deficiency Disease (5hr)
5] Drug Abuse / Intoxication (1hr)
6]-Common conditions of the G.I. Tract -------------------(5 hrs)
7] Diseases of the blood : Examinations of blood disorders – Clinical manifestations of
   blood disease; Anemia – signs and symptoms – types and management ; Hemophilia -
   Cause – clinical features severity of disease – management – complications due to repeated
   haemorrhages – complications due to therapy……………………………………………….. [2 Hours]

D- DERMATOLOGY [20 HRS]

Syllabus
1] Types of skin irruption- classification-weeping & Dry skin lesions
2] Leprosy-Types- Identification-management of neuropathic Hand & foot
3]-Disorders of skin pigmentation-causes-Types[special emphasis to vitiligo]-
   Management
4) In brief bacterial scabies, fungal infection
5] H.I.V. & Sexually transmitted skin lesions
7] Diseases of the scalp-Dandruff, Hair loss, Alopacia, -mnagement
8]-Acne-types-management

SCHEME OF EXAMINATION IN “ MEDICINE ”
THEORY – 80 MARKS + INTERNAL ASSESSMENT – 20 MARKS TOTAL – 100 MARKS
Section A-MCQ-Q-1 [20x1] single best answer
[Based on all the topics included in Medicine syllabus] ---------------------- 20 marks
Section B-SAQ – Q2] to attempt any FIVE out of Six answers – [ 5 x 3]
[based on Cardiovascular or Respiratory conditions] ----- 15 marks
Q3] to attempt any THREE out of Four answers [ 5 x 3]
[based on Neurology] ---------------------------------------- 15 marks
# Section C-LAQ, Q4][ compulsory] based on Neurology ---------------------- 15 marks
Q5] [based on Cardio-vascular conditions] ------------------ 15 marks
OR
Q6] [based on Respiratory conditions] ---------------------- 15 marks
#L.A.Q. should specify the break up of marks e.g. [3+5+7]

INTERNAL ASSESSMENT – One test each in
1] Theory – General Medicine, Rheumatology & Gerontology 25 marks
2] Theory – Cardio-vascular & Respiratory Medicine 50 marks
3] Theory – Neurology 50 marks
4] Clinical – General Medicine, Rheumatology & Gerontology 25 marks
5] Clinical – Cardio-vascular & Respiratory Medicine 25 marks
6] Clinical – Neurology 25 marks
*7] Pediatrics 50 marks
*8] Dermatology 50 marks
TOTAL -------- 300 marks
Internal Assessment marks to be calculated out of 20

Recommended books:
1. Davidson’s Principles and Practice of Medicine
2. Harrison’s Internal Medicine
3. API- Text book of Medicine – 5th edn
4. Golwalla – Medicine for students

SUBJECT: OBSTETRICS/GYNAECOLOGY & PAEDIATRICS
(TOTAL- 70 HOURS) (Subject Code: BPT- 303)

A.OBSTETRICS/GYNAECOLOGY

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<td>Method of Assessment</td>
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Syllabus

1. Anatomy and physiology of female reproductive system ..... (2hrs)
2. Physiology of Puberty & Menstruation, Abnormalities & common problems of Menstruation e.g. Amenorrhoea, Abnormal uterine bleeding, dysmenorrhaea, endometriosis ..... (3 hrs).
3. Uro-genital dysfunction (3hr)
   i) Uterine prolapse – classification & management (Conservative / Surgical)
   ii) Cystocele, Rectocele, Enterocele
   iii) Urinary Incontinence
4. Sterility – management ..............(1hr)
5. Neoplasm of Female reproductive organs – surgical management .......(1hr)
6. Methods of family planning ..............(1hr)
7. Pre, Peri & Post Menopause – Physiology, Complications & management ..(2hrs)
8. Labour .....................................(4hrs)
    Normal – Events of 1st IIrd & III rd Stages of labour, ii) Complications during labour & management, iii) Caesarian section iv) Physiotherapy related to labour
10. Pelvic Inflammatory Diseases with special emphasis to backache due to Gynaec / Obstetrics conditions .................(2hr)
11. Surgical procedures like D&C, Hysterectomy etc............... (1 hr)
12. Neoplasm of Female reproductive organs – surgical management ..(1hr)
13. Methods of family planning............. (1hr)
14. Pregnancy – Fertilization, Development of the foetus, Normal gestations, Abnormal / Multiple gestations, Common Complications during pregnancy like P I H, Eclampsia, Diabetes, Hepatitis, German Measels, TORCH infection. ....(3 hrs)
15. Diagnosis of pregnancy, physiological changes, Antenatal and Postnatal care........ (1 hr)
16. Importance of physiotherapy in gynecological disorders.

CLINICAL/ Practical
Evaluation & presentation of Two cases Each in
a) Uro-genital dysfunction, b) Antenatal care, c) Postnatal care
i) Following normal labour
ii) Following Caeserean section
iii) Pelvic Inflammatory Diseases
OBSERVATION – One Normal & One Caesarian delivery, One case of Tubectomy & One Hysterectomy / Repair of the Uro-genital Prolapse.
Emphasis to be given to the Urogenital dysfunction / Obstetrical conditions / age related Gynecological problem

Text Book:
2) Text book of Obstetrics by Dutta – New Central Book Agency
B. Pediatrics

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Syllabus

1] Normal intra-uterine development of foetus (1hr)
2] Normal development & growth (2hrs)
3] Immunization, Handling of the child, Significance of breast-feeding (1hr)
4] Common causes for Developmental disorders like Sepsis, Prematurity, Asphyxia & Hyperbilirubinemia (1hr)
5] Brain damage-Cerebral Palsy-types & Medical Management (2hrs)
6] Spinal Cord Disorders like Poliomyelities, Spinal Dysraphism, Spina Bifida, Meningocele, Myelomeningocele (2hrs)
7] Common infections
   a) C.N.S. & peripheral nervous system (1hrs)
   b) Typhoid, rubella, mumps, measles, tetanus, diphtheria, chicken pox, hepatitis(1hr)
8] Epilepsy (1hr)
9] Mental Retardation (1hr)
10] Genetically transmitted neuro-muscular conditions (1hr)
11] Malnutrition related condition (1hr)
12] Juvenile R A & other immunological conditions of Musculoskeletal system (1hr)
13] Common diseases of the respiratory system like Asthma, Bronchitis, T.B. & Pneumonia & bronchiectasis (2hrs)
14] Rheumatic & Congenital heart disease (2hrs)
15] Evaluation of baby, Immunization program, Problems and management of low birth weight infants, Paediatric basic and advance life support(BLS), Paediatric Intensive care unit, Learning disability, Autistic spectrum disorder, Attention deficit hyperactivity disorder, Down’s syndrome

CLINICAL (10 HRS)
1] Normal & abnormal reflexes in neonate & child
2] Examination of the nervous system
Text Book:
1) Essentials of Paediatrics – by O.P. Ghai-Inter Print publications
2) D.K. series in Paediatrics

SCHEME OF EXAMINATION
THEORY – 80 MARKS + I.A. 20 MARKS TOTAL – 100 MARKS
Section A: OBSTETRICS & GYNAECOLOGY (40 Marks)
Q1. MCQ’s ..................................................... 10 Marks
Q2. Short Answer Questions (Any 3 out of 5)… 5 marks each…………. 15 Marks
Q3. Short Notes (Any 5 out of 6) ………… 5 marks each……………. 15 Marks

Section B: Paediatrics (40 Marks)
Q1. MCQ’s ………………………………………………………………. 10 Marks
Q2. Short Answer Questions (Any 3 out of 5)… 5 marks each…………. 15 Marks
Q3. Short Notes (Any 5 out of 6) ………… 5 marks each……………. 15 Marks

Practical Viva – 80 MARKS + I.A. 20 MARKS TOTAL – 100 MARKS
Practical Exam -
1) Obstetrics –
2) Gynecology
3) Paediatrics

10% of the average of the total marks to be considered as Internal assessment.

SUBJECT: PHYSICAL DIAGNOSIS & MANIPULATIVE SKILLS
(Subject Code: BPT- 304)

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<td>Theory and Practical</td>
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Syllabus

1] General principles of Human development & maturation………. [5 Hours]

2] Electrodiagnosis .......................... [12 Hours]
pattern c]-Principles of nerve conduction- d]-Late responses-F-wave, H reflex, Blink reflex, e]-electro- physiological principles of assessment of Myoneural junction- f]-E.M.G. instrumentation, basic components, panel diagram, types of electrodes

3] Basics in Manual Therapy, & application in Clinical reasoning……….[12 Hours]
   a]-examination of joint- stability- normal/abnormal, b]-Mobility-assessment of accessory movement, & End feel c]-assessment of articular & extra-articular soft tissue status-differentiation of spasm, acute & chronic muscle hold, tightness/pain--original & Referred ;d]-Basic principles of mobilization skills for joints & soft tissues- (Mainland, Kaltenborn, Mulligan Mec`kenzie Muscle energy technique, myofascial stretching, Cyriax, trigger points, Neural Tissue mobilisation i.e.-slump, butler, &ULTT )- Indications, -contra-indications, Practise of Manipulative therapy basic skills of mobilization [Kaltenborn, Mulligan, Maitland, & Cyriax friction massage only] of extremities on Models.

4]-Assessment of movement dysfunction ............ [18 Hours]
   Higher functions/cranial nerves/altered muscle strength/power/balance/endurance/tone, spasticity, incoordination, abnormal deep & superficial reflexes/limb-length discrepancy/Goniometry/Trick movements/Special Tests/Assessment Scales/altered Posture & Gait—Functional analysis as per I.C.I.D.H-II norms-Functional diagnosis-

5]-Interpretation of various investigations like - Radiological[X-rays] , routine Biochemical investigations , Electrodiagnostic findings ............ [5 Hours]


7) Assessment of Musculoskeletal Dysfunction ........... [20 Hours]

8] Assessment of Hand ................. [2 Hours]
i) Sensations ii) Mobility of joints
   iii) Strength iv) Special Tests like Froment’s Sign, Bunnel – Litter’s Test, Phalen’s Test, Tinel’s Sign, Wartenberg’s Sign. v) Hand Function – Precision & Power Grips

9] Assessment of pain............... [3 Hours]

10] Assessment of Obesity ................. [3 Hours]
i) Pathophysiology
ii) Assessment – BMI, Waist – Hip Ratio

Practical/ CLINICALS (270 hrs)
1] Practice of Manual Therapy in Kaltenborn, Maitland, Mulligan & Cyriax on extremities only & only on models
3] Identification of abnormal breath sounds, measurement of chest expansion, pattern of breathing, Vital parameters, Grades of Dyspnoea, Rate of Perceived exertion, Ankle Brachial Index.
4] Exercise tolerance testing – 6 minutes walk test & Bruce’s protocol on models only
5] Practice to Neuro Therapeutic Skills of NDT, PNF, Rood’s Technique & Brunnstrom on models only.
6] Interpretation of reports – EMG, NC Studies, ABG, PFT, X-ray of Chest, Extremities & Spine & ECG.

Term work in Clinical
A] Documentation & Interpretation of following investigations
i] Electro diagnosis –
 a) SDC
 b) Faradic Galvanic Test
 c) Test for Sensory / pain Threshold
 d) Test for Pain tolerance – Any 3
iii] Neurological – Scales like Modified Ashworth, Berg’s Balance, DGI, Glasgow Coma, Barthel Index, STREAM Format – Any 3 & EMG & NC Studies – 2 each.
B] Case presentation with Functional diagnosis – Three cases Each in –
 i] Musculoskeletal
 ii] Neurological
 iii] Cardiovascular & Pulmonary
To maintain the Record/Journal of the term work & to get each assignment duly singed by Head.

SCHEME OF EXAMINATION
THEORY -80 MARKS :IA-20 MARKS TOTAL 100 MARKS
CLINICAL – 80 MARKS I.A. 20 MARKS TOTAL 100 MARKS
THEORY – Pattern of paper setting
Section A- M.C.Q. Q-1 [20 x 1] based on MUST KNOW area of entire syllabus – 20 marks
Section B-S.A.Q. Q-2] To answer any Five out of Six [5 x 3] ------------------------ 15 marks
Q3] to answer any Three out of Four [ 3 x 5] --------------------- 15 marks
#Section C-L-A QQ-4] ----------------------------------------------- 15 marks
Q-5] ------------------------------------------------------------------ 15 marks
OR
Q6] based on ------------------------------------------------------------------------------------- 15 marks
# Each LAQ should give break up of 15 marks e.g. [3+5+7] etc

**CLINICAL** Pattern of Examination

A] Long Case – any medical or surgical condition 35 marks
[Time maximum 30 minutes for students for evaluation]

i] Psychomotor & affective – skill of History taking [5marks]
ii] Skill of clinical examination [10 marks]
iii] Skill of objective Diagnostic procedure [10 marks]
iv] Cognitive – Ability to justify bases for functional diagnosis [10 marks]

B] Short Case
I] Mobilisation Technique (On Models) [10marks]
II] Neuro Therapeutic Skills – NDT / PNF / Rood’s / Brunnstrom (On Models)
[OR]
II] Electro Diagnosis – SD Curve / Faradic Galvanic Test / Test for Sensory & Pain Threshold & Test for pain Tolerance (On Patient) [10 marks]
[OR]
II] Exercise Tolerance Test (On Model) [10 marks]

C] Spots – (Five) a] X ray
b] Pulmonary Function Test
c] Blood gas analysis [4 x 5 = 20 marks]
d] E.C.G.
e] E.M.G. / N.C. studies

4] Journal ----------------------------------------------------------------------------------------------- 5 marks

**INTERNAL ASSESSMENT**

**THEORY** 1 Terminal & 1 Preliminary Examination of 100 marks each as per University pattern.

**CLINICAL / PRACTICAL**

1 Terminal & 1 Preliminary Examination of 100 marks each as per University pattern.
Internal Assessments marks should be calculated out of 20 marks in Theory & 20 marks in Clinical / Practical
SUBJCT: PHARMACOLOGY (Subject Code: BPT- 305)

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**Syllabus:**

A] MUST KNOW –

i] Drugs described in topics 2 to 9;
ii] Pharmacological effects & mechanism, Formulation, Route of administration, salient Pharma-kinetic feature,
iii] adverse Reactions;
iv] Precautions & contra-indications.

B] DESIRABLE

I] Major group of drugs described in topics 10 to 14
II] bases of use in indicated conditions;
III] Common & serious Adverse Reactions

1. General Pharmacology [5 Hours]
   Introduction, Definitions, Classification of drugs, Sources of drugs, Routes of drug administration, Distribution of drugs, Metabolism and Excretion of drugs Pharmacokinetics, Pharmacodynamics, Factors modifying drug response, Adverse effects.

2] Drug activity of CNS ---------------------------------------------------------- 9 hrs
   -Introduction [1hr] alcohols + Sedatives & hypnotics [2hrs], Anti-convulsions [ 1hrs]
   [1] ;General anaesthetic + local anaesthetic ………….. [1hr]

2. Autonomic Nervous system………………………… [5 hours]

3. Cardiovascular Pharmacology …………………..[10 Hours]
   Drugs Used in the Treatment of Heart Failure: Digitalis, Diuretics, Vasodilators, ACE inhibitors
   Antihypertensive Drugs: Diuretics, Beta Blockers, Calcium Channel Blockers, ACE Inhibitors,
   Central Acting Alpha Agonists, Peripheral Alpha Antagonists, Direct acting Vasodilators,
   Antiarrhythmic Drugs, Drugs Used in the Treatment of Vascular Disease and Tissue Ischemia:
   Vascular Disease, Hemostasis Lipid-Lowering agents, Antithrombotics, Anticoagulants and
Thrombolytics Ischemic Heart Disease – Nitrates, Beta-Blockers, Calcium Channel Blockers
Cerebral Ischemia, Peripheral Vascular Disease.

4) Drugs acting on Respiratory system ----------------------------------------------- 4 hrs
for upper respiratory tract infections – sinusitis- cough, laryngitis, pharyngitis
[ 2 hr], For Bronchial asthma – [1hr] for COPD – effects of prolonged drug administration [1hr]

5. Inflammatory/Immune Diseases ........................................... [14 Hours]
Non-narcotic Analgesics and Nonsteroidal Anti-Inflammatory Drugs: Acetaminophen, NSAIDs,
Aspirin, Nonaspirin NSAIDs, drug Interactins with NSAIDs
Glucocorticoids: Pharmacological Uses of Glucocorticoids, adverse effects, Physiologic Use of
Glucocorticoids Drugs Used in Treatment of Arthritic Diseases: Rheumatoid Arthritis,
Osteoarthritis, Gout Drugs Used in the Treatment of Neuromuscular Immune/Inflammatory
Diseases: Myasthenia gravis, Idiopathic Inflammatory Myopathies, systemic lupus
Erythematosus, Scleroderma, Demyelinating Disease

6) Insulin [1hr] & oral anti-diabetic drugs [1hr] --------------------------------------- 2 hrs

7) Chemo – therapy ......................................................................................... 3 hrs
i) general principles [1hr], ii] anti Tuberculosis [ 1hr] , & iii] anti –leprosy [1hr]

8) Other Chemo Therapeutic drugs ----------------------------------------------- 2 hrs
i] Sulfa drugs in urinary tract infection, ii] tetra / chlora, iii] penicillin

9) Endocrine ................................................................................................. 4 hrs
i] introduction, Thyroid & Antithyroid [1hr]; ii] Estrogen + Progesterone [1] iii] steroidanabolic
steroids [2hrs]

10) Drugs in G.I. tract ...................................................................................... 4 hrs
I] Peptic ulcer + antiemetic [3hrs], ii] Diarrhoea & constipation [1hr]

11) Heamatinics, Vitamin B; Iron ................................................................. 1hrs

12) Dermatological --- Scabies – Psoriasis – Local antifungal ------------------ 1 hrs

13) Vaccines & Sera ....................................................................................... 1 hrs

14) Vitamin – D, Calcium, Phosphorus, Magnesium ................................. 1 hrs.

**SCHEME OF EXAMINATION**
[Theory – 40 marks + Internal assessment – 10 marks]
[There shall be No L. A. Qs in this paper]
Section A Q-1, M.C.Q.- based on single best answer in MUST KNOW area -- 10 marks
* Section – B-Q-2-S.A. Q – To answer any FIVE out of six [ 5 X 3] 15 marks
* Section – C-Q-3-S.A.Q. – To answer any THREE out of four [ 3 x 5] ------- 15 marks
* Emphasis should be given to the drugs related to Musculo-skeletal/Psycho-Neurological / Cardio-Vascular / Respiratory conditions / analgesics & antiinflammatory conditions

**INTERNAL ASSESSMENT** –
Two papers – terminal and prelim examination of 40 marks each. TOTAL 80 Marks

**Recommended Textbooks**
1. Lippicott’s Pharmacology.
2. Essential of Medical Pharmacology by Tripathi
3. Text book of Medical Pharmacology by Padmaja udaykumar
4. Pharmacology by N.Murugesh
5. Pharmacology & Pharmacotherapeutics by Satoskar.