Syllabus
for
Bachelor of Physiotherapy
(BPT)

2014-15
DPU
Dr. D. Y. PATIL VIDYAPEETH, PUNE
(DEEMED UNIVERSITY)

3rd Year
(BPT)
### III BPT

**Subjects-**

**Transcript Hours: 1420**

1. **Orthopaedics and Traumatology**
   
<table>
<thead>
<tr>
<th>Subject</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Orthopaedics and Traumatology</td>
<td>100 hrs</td>
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2. **Neurology and Paediatrics**
   
<table>
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<tr>
<th>Subject</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Neurology</td>
<td>60 hrs</td>
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<tr>
<td>Paediatrics</td>
<td>40 hrs</td>
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3. **Medicine**
   
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<tr>
<th>Subject</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Cardio-Vascular &amp; Pulmonary Medicine</td>
<td>40 hrs</td>
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<tr>
<td>General Medicine, Rheumatology &amp; Gerontology</td>
<td>20 hrs</td>
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<tr>
<td>Clinical</td>
<td>20 hrs</td>
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4. **General Surgery**
   
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<th>Subject</th>
<th>Hours</th>
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<tr>
<td>General Surgery</td>
<td>60 hrs</td>
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5. **Physical Diagnosis & Manipulative skills**
   
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<tr>
<th>Subject</th>
<th>Hours</th>
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<tr>
<td>Physical Diagnosis &amp; Manipulative skills</td>
<td>340 hrs</td>
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6. **Community Medicine & Women’s Health**
   
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<th>Subject</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Community Medicine</td>
<td>40 hrs</td>
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<tr>
<td>Women’s Health</td>
<td>40 hrs</td>
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7. **Research Methodology & Biostatistics**
   
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<th>Hours</th>
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<tbody>
<tr>
<td>Research Methodology &amp; Biostatistics</td>
<td>60 hrs</td>
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8. **Dermatology**
   
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<tbody>
<tr>
<td>Dermatology</td>
<td>20 hrs</td>
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9. **Psychiatry**
   
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<tbody>
<tr>
<td>Psychiatry</td>
<td>20 hrs</td>
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   * College exam theory only

10. **Supervised Physiotherapy Practice**
    
    | Subject | Hours |
    |---------|-------|
    | Supervised Physiotherapy Practice | 560 hrs |

To evaluate /assess & to practice Physiotherapy skills at the acute care /Indoor as well as O.P.D. set up under the supervision of Senior Physiotherapist. A register /Log book to be maintained & to document the Evaluation /Functional analysis & Functional diagnosis reports of minimum 3 cases per assignments & signature to be obtained from respective section In-charge at the end of each assignment.
ORTHOPAEDICS & TRAUMATOLOGY
[100 hrs]
Didactic – 70 hrs + Clinical-30 hrs

Objectives
At the end of the course, the candidate will
1] Be able to discuss the Patho-physiology, clinical manifestations & conservative/Surgical management of various traumatic & cold cases of the Musculo-skeletal Conditions
2] Gain the skill of clinical examination & interpretation of the preoperative cold cases & all the post-operative cases
3] Will be able to read & interpret
   a] salient features of the X-ray of the spine & Extremities
   b] pathological/ biochemical studies pertaining to Orthopaedic Conditions
4] Will be able to correlate the radiological findings with the clinical findings

Syllabus
1. Introduction 3 Hrs
   • Introduction to orthopaedics.
   • Clinical examination in an Orthopaedic patient.
   • Common investigative procedures.
   • Radiological and Imaging techniques in Orthopaedics.

2. Traumatology 3 Hrs
   • Fracture: definition, types, signs and symptoms.
   • Fracture healing.
   • Complications of fractures.
   • Conservative and surgical approaches.
   • Principles of management – reduction (open/closed, immobilization etc).
   • Subluxation/ dislocations – definition, signs and symptoms, management (conservative and operative).
3. Fractures and Dislocations of Upper Limb 6 hrs
Fractures of Upper Limb - causes, clinical features, mechanism of injury, complications, conservative and surgical management of the following fractures:

- Fractures of clavicle and scapula.
- Fractures of greater tuberosity and neck of humerus.
- Fracture shaft of humerus.
- Supracondylar fracture of humerus.
- Fractures of capitulum, radial head, olecranon, coronoid, and epicondyles.
- Both bone fractures of ulna and radius.
- Chauffer’s fracture.
- Colle’s fracture.
- Smith’s fracture.
- Scaphoid fracture.
- Fracture of the metacarpals.
- Bennett’s fracture.
- Fracture of the phalanges. (Proximal and middle.)

Dislocations of Upper Limb:

- Recurrent dislocation of shoulder.
- Posterior dislocation of shoulder – mechanism of injury, clinical features and management.
- Posterior dislocation of elbow– mechanism of injury, clinical feature, complications & management.
4. **Fracture of Spine**  
4 hrs  
- Fracture of Cervical Spine - Mechanism of injury, clinical feature, complications (quadriplegia);  
- Management - immobilization (collar, cast, brace, traction); Management for stabilization, management of complication (bladder and bowel, quadriplegia).  
- Clay shoveller’s fracture.  
- Hangman’s fracture.  
- Fracture odontoid.  
- Fracture of atlas.  
- Fracture of Thoracic and Lumbar Regions - Mechanism of injury, clinical features, management — conservative and surgical of common fractures around thoracic and lumbar regions.  
- Fracture of coccyx.  
- Fracture of Rib Cage - Mechanism of injury, clinical features, management for Fracture Ribs, Fracture of sternum.

5. **Fractures and Dislocations of Lower Limb**  
5 hrs  
Fracture of Pelvis and Lower Limb - causes, clinical features, mechanism of injury, complications, conservative and surgical management of the following fractures:  
- Fracture of pelvis.  
- Fracture neck of femur – classification, clinical features, complications, management - conservative and surgical.  
- Fractures of trochanters.  
- Fracture shaft femur—clinical features, mechanism of injury, complications, management-conservative and surgical.  
- Supracondylar fracture of femur.  
- Fractures of the condyles of femur.  
- Fracture patella.  
- Fractures of tibial condyles.  
- Both bones fracture of tibia and fibula.
• Dupuytren’s fracture
• Maisonneuve’s fracture.
• Pott’s fracture – mechanism of injury, management.
• Bimalleolar fracture, Trimalleolar fracture
• Fracture calcaneum – mechanism of injury, complications and management.
• Fracture of talus.
• Fracture of metatarsals—stress fractures Jone’s fracture.
• Fracture of phalanges.

Dislocations of Lower Limb
Mechanism of injury, clinical features, complications, management of the following dislocations of lower limb.
• Anterior dislocation of hip.
• Posterior dislocation of hip.
• Central dislocation of hip.
• Dislocation of patella. Recurrent dislocation of patella.

6. Diseases of Bones and Joints  9 hrs
Causes, Clinical features, Complications, Management- medical and surgical of the following conditions:

• Infective: Osteomyelitis, TB Spine and other major joints
• Bone tumors: classification, clinical features, management
• Perthes, Slipped Capital Femoral Epiphysis, Avascular Necrosis
• Metabolic: Osteoporosis, Osteopenia Osteomalacia, Rickets

7. Peripheral nerve injuries: Mechanism, Clinical Features, Management and Complications  2 Hrs
8. Deformities - Clinical Features, Complications, Medical and Surgical Management of the Following Congenital and Acquired Deformities.  

6 Hrs

Congenital Deformities
- CTEV
- CDH.
- Torticollis.
- Scoliosis.
- Flat foot.
- Vertical talus.
- Hand anomalies- syndactyly, polydactyly and ectrodactyly.
- Arthrogryposis multiplex congenita(amyoplasia congenita).
- Limb deficiencies- Amelia and Phocomelia.
- Klippel feil syndrome.
- Osteogenesis imperfecta(fragile ossium).
- Cervical rib.

Acquired Deformities
- Acquired Torticollis.
- Scoliosis.
- Kyphosis.
- Lordosis.
- Genu varum, Genu valgum, Genu recurvatum
- Coxa vara.
- Pes cavus, Pes Planus

9. Inflammatory and Degenerative Conditions 4 hrs
Causess, clinical feature, complications, deformities, radiological features, management- conservative and surgical for the following conditions:
- Osteoarthritis.
- Rheumatoid arthritis.
- Ankylosing spondylitis
- Gouty arthritis.
- Psoriatic arthritis.
- Hemophilic arthritis.
- Still’s disease (Juvenile Rheumatoid Arthritis).
- Charcot’s joints.

Connective Tissue Disorders
- Systemic Lupus Erythematosus
- Scleroderma
- Dermatomyositis
- Mixed connective tissue Disease (MCTD)

10. Soft Tissue Injuries 6 Hrs
a) Define terms such as sprains, strains, contusion, tendinitis, rupture, tenosynovitis, tendinosis, bursitis.
b) Mechanism of injury, clinical features, managements-conservative and surgical of the following soft tissue injuries:
- Meniscal injuries of knee.
- Ligamentous injuries of knee.
- Ankle Sprain
- Wrist sprain
- Strains- quadriceps, hamstrings, calf, biceps, triceps etc.
- Contusions- quadriceps, gluteal, calf, deltoid etc.
- Tendon ruptures-Achilles, rotator cuff muscles, biceps, pectorals etc.

11. Regional Conditions 5 Hrs
Definition, Clinical features and management of the following regional conditions:

12. Amputations 3 hrs
• Definition
• Levels of amputation of both lower and upper limbs
• Indications
• Complications
• Management

13. Hand Injuries 2 hrs
Mechanism of injury, clinical features, and management of the following:
• Crush injuries.
• Flexor and extensor injuries.
• Burn injuries of hand.

14. Cervical and Lumbar Pathology 3 Hrs
Causes, clinical feature, patho-physiology, investigations, management-Medical and surgical for the following:
• Prolapsed intervertebral disc (PID)
• Spinal Canal Stenosis.
• Spondylosis (cervical and lumbar)
• Spondylolysis.
• Spondylolisthesis.
• Lumbago/ Lumbosacral strain.
• Sacralisation. Lumbarisation.
• Coccydynia.
• Hemivertebra.

15. Re-constructive surgeries in Polio & cerebral palsy
    (bone & soft tissues)            3 Hrs

16. Syndromes                         3 hrs
Causes, Clinical features, complications, management- conservative and surgical of the following:
• Cervico brachial syndrome
• Thoracic outlet syndrome
• Vertebro- basilar syndrome
• Scalenus syndrome
• Costco clavicular syndrome
• Levator scapulae syndrome
• Piriformis syndrome.

17. Orthopedic Surgeries               3 hrs
Indications, Classification, Types, Principles of management of the following Surgeries :
• Arthrodesis
• Arthroplasty (partial and total replacement)
• Osteotomy
• External fixators
• Spinal stabilization surgeries (Harrington’s, Luque rod, Steffi plating) etc.

CLINICAL
1] Independent Clinical Orthopaedic evaluation, presentation & recording of
   a] 1 acute soft tissue injury [including nerve injury],
   b] 2 cases of infections of bones and joints
   c] 2 cases of degenerative arthritis of extremity joints,
d] 2 degenerative arthritis of spine, 2 chronic backaches,
e] 1 case of acute P.I.D
f] 1 post operative cases of fractures of extremities
g] 1 traumatic paraplegia/quadriplegia

OBSERVATION: At least 2 surgeries of fracture internal fixation, one knee/hip replacement & Re-constructive surgery of the tendons

TEXT BOOKS:
1] Apley`s textbook of Orthopaedics

INTERNAL ASSESSMENT

Pattern of Internal Assessment Examinations
1] Terminal Theory - 80 marks

2] Prelim
   Theory - 80 marks
   (same as the university examination pattern.)
   Practical - 40 marks

   Total - 200 marks

Internal Assessment to be calculated out of 20 marks
SCHEME OF EXAMINATION IN THE SUBJECT
“Orthopaedics and Traumatology”

THEORY- 80 MARKS + I.A.20 MARKS          TOTAL-100MARKS

Section-A
Q-1-MCQs – [20 x 1] Based on single best answer in Orthopaedics

20 marks

Section-B
S.A.Q.- Q-2]-Attempt any FIVE out of Six answers-- [5 x 3] 15 marks
Q-3]- Attempt any THREE out of Four answers [5 x 3]     15 marks

# Section-C
L.A.Q.Q-4]-[compulsory-] 15 marks
Q-5] 15 marks

OR

Q-5] 15 marks

# L.A.Q. should specify the break up of marks-e.g. [3 + 5 + 7]
NEUROLOGY & PAEDIATRICS
[100 hrs]

Objectives:
At the end of the course, the candidate will
1] Be able to describe Etiology, Pathophysiology, Signs 
& Symptoms & Management of the various Neurological and 
Paediatric conditions.
2] Be able to describe normal development & growth of a child, 
importance of Immunization & breast-feeding & psychological 
aspect of development.
4] Acquire knowledge in brief about intra-uterine development of 
the foetus
4] Acquire skill of clinical examination of a neonate / child with 
respect to neurological, Musculoskeletal, Respiratory & 
Cardiovascular conditions.

SECTION I :- NEUROLOGY
(Didactic-45 hrs + Clinical-15 hrs = 60 Hrs)

Syllabus:-

1. Circulation of the brain & spinal cord 2 Hrs
2. Neurological Investigations 2 Hrs
   X-Ray, CT, MRI, Evoked Potentials, LP, CSF, EMG, NCV, 
   EEG
3. Cerebro – vascular accidents 3 Hrs
   Define: Stroke, TIA, RIA, Stroke in evolution, Lacunar infarct. 
   Risk Factors, Causes, Investigations, Differential Diagnosis, 
   Management- Medical & Surgical, Complications
4. Movement Disorders 3 Hrs
   Definition, etiology, risk factors, pathophysiology, 
   classification, clinical signs & symptoms, investigations,
differential diagnosis, medical management, surgical management and complications of following disorders:
- Parkinson's disease
- Dystonia
- Chorea
- Ballismus,
- Athetosis
- Tics, Myoclonus
- Wilson’s disease

5. **Polyneuropathy**  
   2 Hrs
   - Classification of Polyneuropathies
   - Causes, clinical features, management of GBS, Diabetic and Alcoholic Neuropathy

6. **Disorders & Diseases of muscle**  
   3 Hrs
   - Classification, investigations, imaging methods, Muscle biopsy, management of muscle diseases, genetic counselling.
   - Classification, etiology, signs & symptoms of Muscular dystrophy and Myotonic dystrophy

7. **Motor neuron diseases**  
   3 Hrs
   Etiology, pathophysiology, classification, clinical signs & symptoms, investigations, differential diagnosis, medical management, and complications of following disorders:
   - Amyotrophic lateral sclerosis
   - Spinal muscular atrophy
   - Hereditary bulbar palsy
   - Neuromyotonia
   - Post-irradiation lumbosacral polyradiculopathy.

8. **Multiple Sclerosis**  
   1 Hr
   Etiology, pathophysiology, classification, clinical signs & symptoms, investigations, differential diagnosis, medical management, and complications.
9. **Infections of brain and spinal cord** 3 Hrs
   Etiology, pathophysiology, classification, clinical signs & symptoms, investigations, differential diagnosis, medical management, surgical management and complications of following disorders:
   - Meningitis
   - Encephalitis
   - Neurosyphilis
   - Herpes
   - HIV infection
   - Poliomyelitis and Post-polio syndrome
   - Leprosy
   - Tetanus

10. **Higher cortical, neuro psychological and neurobehavioral disorders** 4 Hrs
   - Physiological nature of Epilepsy, classification, clinical features, investigations, medical & surgical management of following disorders – Non-epileptic attacks of childhood, Epilepsy in childhood, Seizers, and Epilepsy syndromes in adult.
   - Classification and clinical features of Dementia, Alzheimer’s disease.
   - Causes & investigations of Coma, criteria for diagnosis of Brain death.

11. **Cerebellar & Co-ordination disorders** 2 Hrs
   - Congenital Ataxia
   - Friedrich’s Ataxia
   - Tabes dorsalis
12. **Disorders of lower cranial nerves & Special Senses**  
3 Hrs  
Etiology, clinical features, investigations, and management of following disorders  
- Trigeminal neuralgia  
- Lesions in facial nerve: Facial palsy, Bell’s palsy, Hemi facial spasm  
- Glossopharangial neuralgia  
- Lesions of Vagus, Spinal accessory nerve, Hypoglossal nerve.  
- Disorders of special senses

13. **Disorders of Myoneural Junction**  
1 Hr  
Etiology, classification, signs & symptoms, investigations, management, of following Disorders:  
- Myasthenia gravis  
- Eaton-Lambert syndrome  
- Botulism

14. **Spinal cord Disorders**  
4 Hrs  
Functions of tracts  
Definition, etiology, risk factors, pathophysiology, classification, clinical signs & symptoms, investigations, differential diagnosis, medical management, surgical management and complications of following disorders:  
- Spinal Cord Injury  
- Epidural abscess,  
- Transverse myelitis,  
- Spina bifida,  
- Conus medullaris syndrome  
- Bowel & Bladder Dysfunction

15. **Head injury**  
2 Hrs  
Etiology, classification, clinical signs & symptoms, investigations, differential diagnosis, medical management, surgical management and complications.
16. **Brain tumors and spinal tumors** 2 Hrs  
Classification, clinical features, investigations, medical and surgical management.

**DESI RABLE TO KNOW AREA**
1. Disorders of Anterior Horn Cell 1 Hrs  
2. Dysfunction of Autonomous Nervous System 2 Hrs  
3. Cerebrospinal Fluid 2 Hrs  
   i) Formation & Absorption  
   ii) Status in Various Disorders

**CLINICAL** 15 Hrs  
History, Evaluation, presentation and recording of cases in  
1] Central nervous system – 3 cases  
2] Peripheral nervous system- 2 cases

**TEXT BOOKS:**  
1. Davidson’s Principles and Practice of Medicine  
2. Textbook of Neurology- Victor Adams  
4. Illustrated Neurology & Neurosurgery: Lindsay  
5. Brains Diseases of Nervous System

**SECTION – II:- PAEDIATRICS**  
(Didactic-30 hrs + Clinical-10 hrs)

**Syllabus**

**MUST KNOW**
1. Normal development & growth 2 Hrs  
2. Breast feeding and immunization 1 Hr  
3. Prenatal, Perinatal and Postnatal problems and management  
   (Birth injuries): Neck, shoulder dystocia, Brachial plexus injury, Fractures 1 Hr  
4. Congenital abnormalities and management 3 Hrs  
5. Problems and management of LBW infants 2 Hrs
6. **Developmental Delay**: 2 Hrs
   Etiology, pathophysiology, classification, clinical signs & symptoms, investigations, differential diagnosis, medical management, surgical management and complications of following disorders:

7. **Respiratory conditions of childhood**: Pneumonias in children – Bacterial & Tubercular, Empyema, Asthma 2 Hrs

8. **Orthopedic and Neurological disorders in childhood, Clinical features and management**; 8 hrs
   - Cerebral palsy,
   - Meningitis
   - Encephalitis
   - Hydrocephalus,
   - Ataxia
   - Arnold-chiari malformation,
   - Basilar impression & Cerebral malformations
   - Dandy walker syndrome
   - Down’s syndrome
   - Floppy infant
   - GBS
   - Poliomyelitis
   - Epilepsy
   - Neural tube defects in Paediatrics
   - Muscular dystrophies & Neuropathy

9. **Sensory disorders – problems resulting from loss of vision and hearing** 1 Hrs

10. **Learning and behavioural problems** 2 Hrs
    - Attention Deficit Hyperactivity Disorder
    - Autism,
    - Challenging behaviours,
    - Educational delay,
    - The Clumsy Child.
11. **Nutritional disorders of childhood**  
   Rickets and scurvy, PEM (Kwashiorkar and Marasmus)  
   
   **DESIRABLE TO KNOW**  
   1] Infections – Congenital & Neonatal, Mental retardation  
   2] Coma in Paediatrics and Acute rheumatic fever  
   
   **NICE TO KNOW**  
   1] Normal intra-uterine development of foetus  
   2] Bronchiolitis, & Wheezy baby  
   
   **CLINICAL**  
   1] Normal & abnormal reflexes in neonate & child  
   2] Examination of the nervous system  
   3] Examination of respiratory system  
   4] Examination of cardiovascular system  
   
   **Text Books:**  
   1] Essentials of Paediatrics – by O. P. Ghai - Inter Print publications  
   2] D. K. series in Paediatrics  
   
   **SCHEME OF EXAMINATION (THEORY ONLY)**  
   **Pattern of Internal Assessment Examinations**  
   1] Terminal Theory  -  80 marks  
   2] Prelim  
      Theory  -  80 marks  
      (same as the university examination pattern.)  
   Practical (Neurology)  -  40 marks  
   Total  -  200 marks  
   Internal Assessment to be calculated out of 20 marks
SCHEME OF EXAMINATION IN THE SUBJECT
“NEUROLOGY & PAEDIATRICS”

- Neurology – 50 marks + Paediatrics – 30 marks = 80 marks + I.A. – 20 marks = Total 100 marks

Section A - M. C. Q. based on Single best answer in MUST KNOW area --- time 30 mins.
Q-1 Based on Neurology [1 x 20] ----------------------------- 20 marks
Q-2 Based on Paediatrics [1 x 10] --------------------------- 10 marks

Section B - based on Neurology
Q-3 Aanswer Any FIVE out of Six [5 x 3] -------------------------- 15 marks
Q-4 L.A.Q.----------------------------------------------- 15 marks
(OR)
Q-4- ------------------------------------------------- 15 marks

Section C - S. A. Q. based on Paediatrics
Q-5 Answer any FOUR out of Five [4 x 5] ---------------------- 20 marks
MEDICINE
[80 hrs]

A] CARDIO-VASCULAR & PULMONARY MEDICINE
Didactic 40 hrs

B] GENERAL MEDICINE, RHEUMATOLOGY & GERONTOLOGY
Didactic 20 hrs

C] CLINICAL
20 hrs

Objective – At the end of the course, the candidate will

1] Be able to describe Etiology, Pathophysiology, Signs & Symptoms & Management of the various Endocinal, Metabolic, Geriatric & Nutrition Deficiency conditions.
2] Be able to describe Etiology, Pathophysiology, Signs & Symptoms, Clinical Evaluation & Management of the various Rheumatological Cardiovascular and Respiratory Conditions.
3] Be able to interpret Chest X-ray, Blood gas analysis, P.F.T. findings, Blood investigations done for various medical and Rheumatological conditions.
5] Be able to describe the principles of Management at the Medical Intensive Care Unit.

Syllabus

MUST KNOW AREA
A-CARDIO-VASULAR & RESPIRATORY/ PULMONARY MEDICINE (40 hrs)

a) DISEASES OF THE CARDIO-VASCULAR SYSTEM
• Examination of CardioVascular System
  3 Hrs
• ECG – Normal & Variations due to ischemia & infarction
  2 Hrs
• Stress Test
  1 Hr
• Definition, Etiology, Clinical Features, Complications, Management of the following Cardio-vascular diseases:
  a) I.H.D.–Myocardial infarction
     2 Hrs
  b) Valvular Heart Disease – i) Congenital ii) Acquired
     2 Hrs
c) Rheumatic Fever & Rheumatic Heart Disease 2 Hrs

d) Infective Endocarditis 1 Hr

e) Congenital Heart Diseases 2 Hrs

f) Unstable Angina 1 Hr

b) DISEASES OF THE RESPIRATORY SYSTEM

• Examination of Respiratory System 2 Hrs

• Introduction of clinical examination–Breath sounds, X ray chest, ABG, PFT 2 Hrs

• Patterns of Respiratory Diseases: Obstructive & Restrictive 1 Hr

• Definition, Etiology, Clinical Features, Complications, Management of Diseases of the respiratory system:
  a) Common Infectious diseases like Tuberculosis, Pneumonia, Lung Abscess, Bronchiectasis. 5 Hrs
  b) Diseases of Pleura like Pleural Effusion, Pneumothorax, Hydropneumothorax, Empyema. 5 Hrs
  c) Obstructive Lung Diseases like Bronchitis, Emphysema, Bronchial Asthma, Cystic Fibrosis. 2 Hrs
  d) Interstitial Lung Diseases 2 Hrs
  e) Respiratory Failure: Definition, Types, Causes, Clinical Features, Diagnosis and Management 1 Hr
  f) Intensive Medical Unit – Infrastructure & Treatment 1 Hr

DESI RABLE TO KNOW

a) Arrhythmia – classification 1 Hrs

b) Occupational lung diseases like Silicosis, Asbestosis, Pneumoconiosis, Brucellosis, Farmer’s Lung 2 Hrs
B - GENERAL MEDICINE, RHEUMATOLOGY & GERONTOLOGY (20 hrs)

1] General Medicine

MUST KNOW

1. Diabetes Mellitus 2 Hrs
   Etiology and pathogenesis, Clinical manifestations, Management and Complications of diabetes.

2. Diseases of Blood 2 Hrs
   Anemia : Signs and symptoms – types and management
   Hemophilia Cause – clinical features severity of disease – management – Complications due to repeated haemorrhages – complications due to therapy

DESIRABLE TO KNOW

Disorders of Endocrine system 4 Hrs
   i) Thyroid,
   ii) Pituitary & Adrenal conditions
   iii) Calcium Metabolism

2] Rheumatological Conditions

MUST TO KNOW AREA

- Introduction to Rheumatology and Classification 1 Hr
- Rheumatoid Arthritis , Juvenile RA 2 Hrs
- Chicken Gunia, Psoriatic, Gouty Arthritis 1 Hr

DESIRABLE TO KNOW AREA

i) S S A 1 Hr

3] Geriatric Conditions
**MUST KNOW**

i) Osteoporosis: Causes, Clinical features, Complications, Management- medical and surgical of the following conditions  
**2 Hrs**

ii) Hypertension: Definition, causes, classification, types, assessment, investigations and management.  
**2 Hrs**

**DESIRABLE TO KNOW**

i) Aging Process  
**1 Hr**

ii) General Health Care, Wellness Clinic  
**1 Hr**

iii) Nutrition Deficiency Disease & Drug Abuse / Intoxication  
**1 Hr**

**Text Book**

1) API - Text book of Medicine – 5 th edn  
2) Golwalla – Medicine for students  
3) Principles & Practice of Medicine – 16 th edn - by Davidson  
4) Clinical Medicine :- P. J. Mehta

**C – CLINICAL**  
20 HRS

History, Evaluation, presentation and recording of two cases each in

a) Cardio vascular system 

b) Respiratory system 

c) Geriatrics 

d) General Medicine & Rheumatology
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] Attempt any FIVE out of Six – [ 5 x 3 ]
15 marks

Q3] Attempt any THREE out of Four [ 5 x 3 ]
15 marks

#Section C- LAQ, Q4] [compulsory] ---------------------------15 marks
Q5]--- LAQ Based on Cardio-vascular conditions -----------------15 marks
OR
Q5] LAQ [Based on Respiratory conditions] ------------------- 15 marks

#L. A. Q. should specify the break up of marks e.g.[3+5+7 ]

Pattern of Internal Assessment Examinations
1] Terminal Theory - 80 marks
2] Prelim
   Theory - 80 marks
   Practical (Cardio-vascular and respiratory) - 40 marks
   Total - 200 marks

Internal Assessment to be calculated out of 20 marks
SURGERY
[60 hrs]
(Didactic-50 hrs + Clinical-10 hrs)

Objective- At the end of the course, the candidate will be able to-
1) Understand & describe pre operative evaluation various surgical indications in abdominal thoracic, Neuro Surgical & Peripheral vascular conditions.
2) To understand surgical steps & approaches in short & should be able to describe components of soft tissues cut to reach target tissue & complications.
3) To assess post operative complications & its implications in ward treatment, prognosis, morbidity & mortality.
4) To describe effects of surgical trauma & Anaesthesia in post operative course.
5) Understand classify, clinically assess, evaluate & describe surgical management in brief in. a) Wounds and Ulcers b) Burns c) Head Injuries.
6) Be able to read & interpret finding of X-ray chest & Abdomen, CT Scan, USG.

SYLLABUS -

MUST KNOW
1) Infection and inflammation-acute / chronic-signs, symptoms, complications & management. 2 Hrs.
2) Wounds and ulcers – classification, healing, management. 2 Hrs
3) Abdominal Surgeries: 5 Hrs
   • Surgical anatomy of Anterior Abdominal wall
   • Surgical approaches.
   • Common abdominal surgeries like Cholecystectomy, Colostomy, Ileostomy, Gastrectomy, Hernias, Appendicectomy, Neprectomy, Prostectomy.
4) **Thoracic surgeries**  
1 Hr  
- Thoracotomy - Definition, Types of Incisions with emphasis to the site of incision, muscles cut and complications.

A) **Lung surgeries:**  
4 Hrs  
- Pneumonectomy  
- Lobectomy,  
- Segmentectomy – Indications, Physiological changes and Complications  
- Thoracoplasty  
- Pleurectomy  
- Pleurodesis and Decortication of the Lung.  
- Intercostal Drainage System

B) **Cardiac surgeries**  
3 Hrs  
- An overview of the Cardio-Pulmonary Bypass Machine  
- Extracardiac Operations: Closed Heart surgery, Open Heart surgery.  
- Transplant Surgery – Heart, Lung and Kidney – Indications, Physiological changes and Complications  
- Chest Injuries, evaluation, management.

5) **Peripheral vascular diseases**  
3 Hrs  
Definition, Etiology, Clinical features, signs and symptoms, complications, management and treatment of following diseases:  
- Atherosclerosis  
- Arteriosclerosis  
- Buergers  
- Raynauds  
- Varicose veins & DVT

6) **Burns and Plastic Surgery**  
9 Hrs  
- Burns- causes, classification, ward management, post burn contractures, various Reconstructive & plastic surgeries  
- Skin grafts/flaps- pedicle/ Tube /Muscle flap Types, indications with special emphasis to burns/ wounds, ulcers, post surgical head, neck, face defects and reconstruction.
• Hypertropic scar & keloid – management c]-Principles of tendon transfers-with special emphasis to hand, foot & facial paralysis

7] Surgical Oncology –
Cancer – definition, types, clinical manifestations of cancer, Staging of Cancer, surgical procedures involved in the management of cancer. 3 Hrs

8] Bariatric Surgeries 1Hr

9] Emergency Surgical Procedures: Tracheostomy, Indications: steps, post operative care 1 Hr

10] Introduction, Indications and Complications of following Neuro surgeries 4 Hrs
   o Burr-hole, Craniotomy
   o Cranioplasty
   o Deep brain stimulation
   o Shunting
   o Laminectomy
   o Hemilaminectomy
   o Microvascular decompression surgery
   o Embolization
   o Ablative surgery - Thalamotomy and Pallidotomy
   o Coiling of aneurysm and Clipping of aneurysm
   o Neural implantaion

11] Surgical trauma: 2 Hrs
   • Response of body
   • Effect of Anesthesia,
   • Shock & its types.
   • Fluid & electrolyte balance.
   • Total Parenteral Nutrition.

12] Common ENT problems 3 hrs
   1. ENT conditions & its management : Otitis Media
   2. Surgical treatments in VII (facial) & VIII nerve palsy

13] Clinical Radiology-X-ray-chest-normal/abnormal 5 hrs
NICE TO KNOW AREA
1] Various eye problems – surgeries for III, IV nerve palsy, cataract IOL.  
2] Surgeries on arteries, veins (Vascular surgery)

CLINICAL:  
Evaluation, presentation & recording of one case each in
1] burns,

DESIRABLE TO KNOW
Auscultation & its interpretation, with special emphasis to Pulmonary Function, Reading & Interpretation of the X-ray chest, P.F.T., Blood-Gas analysis-

TEXT BOOKS
1] Under-graduate Surgery by Nan
4] Clinical & Operative surgery by S. Das
5] T .B. of surgery by S. Das

SCHEME OF EXAMINATION –
[Theory – 40 marks + Internal assessment – 10 marks]
[There shall be No L. A. Qs in this paper]

Section Q-1, M. C. Q.-Based on single best answer in MUST KNOW area --10 marks
*Section – B- Q-2-S.A.Q – Answer any FIVE out of six [5 X 3] 15 marks
Q-3-S.A.Q.– Answer any THREE out of four [3 x 5] 15 marks

INTERNAL ASSESSMENT –
Two papers – terminal and prelim examination of 40 marks each.  TOTAL 80 MARKS
Internal Assessment to be calculated out of 10 marks
PHYSICAL DIAGNOSIS & MANIPULATIVE SKILLS

HUMAN DEVELOPMENT, GROWTH Didactic -20 hrs
+laboratory – 10 hrs & AGING PROCESS

ELECTRODIAGNOSIS Didactic - 15 hrs
+*Lab./Clinical – 50 hrs
FUNCTIONAL ANALYSIS Didactic – 25 hrs
+*Lab/Clinical – 70 hrs
MANIPULATIVE SKILLS Didactic – 10 hrs
+Practical /Lab – 110 hrs
NEUROTHERAPEUTIC SKILLS Didactic – 10 hrs
+Practical /Lab – 20 hrs

Objectives
At the end of the course, the candidate will
1] Be able to describe the human development & maturation; with special emphasis to sensory, motor, psychological & social aspects and alteration during aging process.
2] Acquire the skill of detection & objective documentation of the Neurological, Musculoskeletal, cardiovascular & pulmonary dysfunctions such as Pain, altered muscle power mobility, endurance, limb length, posture, gait, hand function & A. D. L. in adult & paediatric conditions & acquire skill & interpretation of Exercise tolerance test to arrive at the Functional diagnosis as per International Classification of Functioning.
3] Acquire the skills to use on patients, the therapeutic currents, for Electro-diagnosis of sensory, &motor dysfunction & pain.
4] Be able to describe the physiology of nerve conduction & motor units, interpretation of Normal & Abnormal EMG, Nerve Conduction studies & Late responses.
5] Acquire the simple skills of mobilization of the extremities on models
6] Acquire the Neuro therapeutics skills on models
7] Be able to do Interpretation of common investigations used for functional diagnosis.

Syllabus:
1] GENERAL PRINCIPLES OF HUMAN DEVELOPMENT & MATURATION

Didactic - 20 hrs

MUST KNOW AREA


b] Factors influencing human development & growth - 3 hrs

i) Biological ii) Environmental iii) Inherited.

c] Principles of maturation - 10 Hrs

i) in general

ii) In anatomical directional pattern – Cephalo – caudal, Proximo – distal, Centero- lateral, Mass to specific pattern, Gross to fine motor development, Reflex maturation tests

iii) Development in specific fields

a] Oromotor development

b] Sensory development

c] Neurodevelopment of hand function

2] ELECTRO DIAGNOSIS

a) Physiology of resting membrane potential & action potential, Propagation of Action Potential, Volume conduction - 2 Hrs

b) Physiology of muscle contraction - 1 Hr

c) Motor unit & Recruitment pattern of motor unit – Size principle - 2 Hrs

Electroneuromyography

d) Electro – myography - 5 Hrs

i) Principles

ii) Instrumentation – Basic components like CRO, Filter, Amplifier & Preampifier, Types of Electrodes.

iii) Normal & Abnormal EMG pattern

a) At rest

b) On minimal contraction

 c) On maximal contraction

e) Nerve Conduction Studies- Principles & Technique - 5 Hrs
3] BASICS IN MANUAL THERAPY & APPLICATIONS WITH CLINICAL REASONING

a] Basic principles, Indications & Contra-Indications of schools of thoughts of Manual Therapy  6 Hrs
   i)  Maitland
   ii) Kaltenborn
   iii) Mulligan
   iv) Mckenzie
   v)  Butler
   vi) Muscle Energy Technique
   vii) Myofascial stretching
   viii) Cyriax : Pain-Original and Referred
   ix)  Neuro Dynamic Testing

4] ASSESSMENT OF MUSCULOSKELETAL SYSTEM  9 Hrs

1. SOAP Format of Assessment :
   ✓ Demographic Data Collection
   ✓ Chief Complaint
   ✓ History Taking
   ✓ ASSESSMENT OF PAIN
      i.  Intensity & quality
      ii. Objective assessment & documentation – VAS, Mc Gill’s modified questionnaire, Numerical Rating Scale
   ✓ Assessment of Posture
   ✓ Assessment of Gait
   ✓ Palpation : Limb Length and Girth measurement
   ✓ Selective Tissue Tension Testing: Examination of joint integrity (Contractile tissues/ Non contractile tissues)
      i.  Active movement
      ii. Passive movement : Assessment of accessory movement & End feel
      iii. Resisted isometric contraction
   ✓ Tightness Testing
   ✓ Assessment of Muscle Strength (Group and Individual)
   ✓ Special Tests
2. Observational Movement analysis and Analysis of Muscle Work  
3. Assessment of articular & extra-articular soft tissue status  
   i) Myofascial assessment  
   ii) Acute & Chronic muscle hold  
4. Outcome Measures  
5. Functional Diagnosis using ICF  
6. Interpretation of X-ray of extremities &spine, routine, biochemical investigations

5] ASSESSMENT OF HAND  
   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

6] BASICS IN NEUROTHERAPEUTICS SKILLS & APPLICATIONS WITH CLINICAL REASONING.  10 Hrs
   i) Principles and Indications of application of Neuro Developmental Technique  
   ii) Principles and Indications of application of Rood’s Technique  
   iii) Principles and Indications of application of PNF  
   iv) Principles and Indications of application of Brunstrom  
   v) Introduction to Vojta, SI, MRP, CIMT, and TOA

7] ASSESSMENT OF NEUROMUSCULAR FUNCTION  5 Hrs
   i) Higher functions  
   ii) Cranial nerves  
   iii) Sensations & sensory organization  
   iv) Joint mobility  
   v) Body image  
   vi) one  
   vii) Reflexes-Superficial & Deep  
   viii) Voluntary control  
   ix) Muscle Strength  
   x) Co-ordination
xi) Balance
xii) Endurance
xiii) Trick movements
xiv) Limb Length
xv) Posture
xvi) Gait
xvii) Scales-Berg’s Balance, Ashworth, Glasgow Coma, DGI
xviii) Functional Diagnosis using ICF
xix) Interpretation of Electro diagnostic findings, routine Biochemical investigations.

8] ASSESSMENT OF CARDIO VASCULAR & PULMONARY DYSFUNCTION  5 Hrs

i.) Demographic Data
ii.) Chief complaint
iii.) HOPI
iv.) History of Symptoms
v.) Past Relevant Histories
vi.) Vital Parameters
vii.) Examination: Head and Neck, Chest and Extremities
viii.) Palpation: Head and Neck, Chest and Extremities
ix.) Measurements: Chest Expansion, symmetry of chest movement
x.) Auscultation: Normal and Abnormal Breath Sounds
xi.) Special tests: Breath Holding Test etc.
xii.) Outcome Measures & Investigations:
   • Quality of life questionnaire
   • BORG and Modified BORG scale for Rating of Perceived Exertion (RPE)
   • Exercise Tolerance – six minutes walk test, Theoretical bases of Bruce’s protocol.
   • Peak Flow Meter
   • ABG, PFT, ECG- (Normal & Variations in common pathologic conditions)
   • X-ray Chest
xiii.) Tests for Peripheral Arterial & Venous circulation
xiv.) Ankle Brachial Index
9] ASSESSMENT OF OBESITY 5 Hrs
i) Pathophysiology
ii) Assessment – BMI, Waist – Hip Ratio
iii) Assessment of Fitness-Flexibility, Endurance and Agility

DESIRABLE TO KNOW
1] F wave
2] H reflex
3] Technique and application of Neuro Developmental Technique on models
4] Technique and application of Rood’s Technique on models
5] Technique and application of PNF on models
6] Technique and application of Brunnstrom on models
7] Myotomes & Sclerotomes
8] Pain - Body diagram, facial expression scale, Thermometer scale
9] Obesity – Skin fold measurement, Anthropometric measurements, Newer Methods

NICE TO KNOW
1] Demonstration of EMG & NCV Technique

CLINICALS
1] Practice of Manual Therapy in Kaltenborn, Maitland, Mulligan & Cyriax on extremities only & only on models
2] Identification of abnormal breath sounds, measurement of chest expansion, pattern of breathing, Vital parameters, Grades of Dyspnoea, Rate of Perceived exertion, Ankle Brachial Index.
3] Exercise tolerance testing – 6 minutes walk test & Bruce ’s protocol on models only
4] Practice to Neuro Therapeutic Skills of NDT, PNF, Rood’s Technique & Brunnstrom on models only.
5] Interpretation of reports – EMG, NCV Studies, ABG, PFT, X-ray of Chest, Extremities, Spine & ECG.
6] Observation analysis
7] Muscle work & pathological movements (Trick movements)
Term work in Clinical
A] Documentation & Interpretation of following investigations
   i] Cardio Vascular & Pulmonary – ABG, PFT, ECG, X-ray Chest, Exercise Tolerance Test-1 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 signed by the Incharge.

Text Book:
1) Maitlands book on Manual therapy,
2) Clinical Electro Therapy – Nelson – Currir ---Appleton &Lange publication
3) Clinical Electromyography – by Mishra
4) Mobilisation – Kaltenborn
5) Physical Rehabilitation, Assessment and treatment by Susan B O’s Sullivan

Reference Book:
1) Orthopaedic Physical examination – by Magee
2) Mobilization methods – Kaltonborn
3) Clinical Electromyography – Kimura
4) Orthopaedic Physical therapy – Donnatelli
5) Exercise &Heart – Wenger
6) Exercise Physiology – William D Mc ’Ardle
7) Facilitation techniques based on NDT principles by Lois Bly Allison Whiteside
8) Neurological Examination by John Patten
9) Movement therapy in Hemiplegia by Brunnstrom
10) Cash textbook of Physiotherapy in neurological conditions by Patricia Downie
11) Physical Dysfunction by Tromble Scoot
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] Answer any Five out of Six [5 x 3] 15 marks
Q3]Answer any Three out of Four [3 x 5] 15 marks
#Section C-L-A QQ-4] 15 marks
Q-5] 15 marks

OR
Q5] based on 15 marks

#Each LAQ should give break up of 15 marks e.g.[3+5+7] etc

CLINICAL / PRACTICAL:- 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 [5 marks]
ii] Skill of clinical examination [10 marks]
iii] Skill of objective Diagnostic procedure [10 marks]
v] Cognitive – Ability to justify bases for functional diagnosis [10 marks]

B] Short Case
I] Mobilization Technique (On Models) or
Observational movement analysis or
Observational muscle work analysis 10 marks
II] Neuro Therapeutic Skills – NDT /PNF /Rood ’s /Brunnstrom (On Models)

OR
Exercise Tolerance Test (On Model) 10 marks

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

4] Journal 5 marks

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INTERNAL ASSESSMENT

THEORY
1 Terminal & 1 Preliminary Examination of 80 marks each
[Section A (20 marks), B (30 marks)& C (30 marks)]

CLINICAL / PRACTICAL
- 1 Terminal & 1 Preliminary Examination of 80 marks each (based on pattern of University Examination)
- Internal Assessments marks should be calculated out of 20 marks in Theory & 20 marks in Clinical / Practical.
COMMUNITY MEDICINE & WOMEN’S HEALTH
(80 hours)

OBJECTIVES

- At the end of the course, the candidate shall be able to understand the contents given in the syllabus of Community Medicine.

2) Be able to describe the normal & abnormal physiological events during the Puberty, Pregnancy, Labour, Puerperium, & Pre, Peri & Post Menopause.

3) Be able to discuss common complications during Pregnancy, Labour, Puerperium & Pre, Peri & Post Menopausal stage & various aspects of Urogenital Dysfunction & the management in brief.

4) Acquire the skills of the clinical examination of Pelvic Floor.

SECTION A:- COMMUNITY MEDICINE
(Didactic :- 40HRS)

SYLLABUS

MUST TO KNOW

1. Health & Disease 5 Hrs

- Definitions: National & International, Concepts, Dimensions and Indicators of Health, Concept of well-being, Spectrum and Determinants of Health
- Concept and natural history of Disease, Concepts of disease control and prevention, Modes of Intervention
- Population Medicine
- The role of socio-economic and cultural environment in health and disease
2. Epidemiology  
   - Definition and scope.
   - Principles of Epidemiology and Epidemiological methods, Uses of Epidemiology

3. Socio-Economical & Cultural Issues related to Morbidity owing to the Physical  
   Disability & Handicaps of Structural / Neuro-motor & Psychosomatic origin:
   A] Health problem in vulnerable groups  
      i] Pregnant & lactating women, Pelvic floor Dysfunction, Urinary incontinence,  
      ii] Pre-term babies with high risk, Infants & Pre-School Children-Brain  
   Damage, during birth injury

4. Demography and Family Planning  
   - Family planning-objectives of national family planning programme  
   - Family planning methods: A general idea of advantage and disadvantages of the methods.

5. Immunization programmes – children & hospital staff.  

6. Occupational Health:  
   - Occupational hazards,  
   - Occupational diseases  
   - Prevention of occupational diseases.  
   - Social security and other measures for the protection from occupational hazard accidents and diseases,  
   - Compensation acts.

7. Hospital waste management  
   - Sources of hospital waste, Health hazards, Waste management

8. Disaster Management  
   - Natural and man made disasters  
   - Disaster impact and response
• Relief phase
• Epidemiologic surveillance and disease control, Nutrition, Rehabilitation, Disaster preparedness

9. Health Education 3 Hrs
• Concepts, aims and objectives
• Approaches to health education
• Models of health education
• Contents of health education
• Principles of health education
• Practice of health education

10. Addiction – Alcholism, Neuromotor, Psychosomatic disorders and Smoking 1 Hr

DESIRABLE TO KNOW
11. Environmental Hygiene including man & his surrounding, Occupational & Industrial hygiene, Village & Town Sanitation. 2 Hrs

12. Overview of Public Health Administration at Central & State levels – Strategies of Health Delivery System for “Millennium Development goals” National health Programme. Brief role of WHO. 2 Hrs

13. Mental Health 2 Hrs
• Characteristics of a mentally healthy person
• Types of mental illness
• Causes of mental ill health
• Preventive aspects
• Mental health services
• Alcohol and drug dependence

14. Nutrition and Health 1 Hr
• Nutritional problems in public health
• Community nutrition programmes
NICE TO KNOW

15. **Health programmes in India** 4 Hrs

- Vector borne disease control programme
- National leprosy eradication programme
- National tuberculosis programme,
- National AIDS control programme,
- National programme for control of blindness
- Iodine deficiency disorders (IDD) programme,
- Universal Immunisation programme
- Reproductive and child health programme
- National cancer control programme
- National mental health programme
- National diabetes control programme
- National family welfare programme
- National sanitation and water supply programme,
- Minimum needs programme

**Text Book**

1) K. Park – Park ’s Textbook of Preventive & Social Medicine
2) P. K. Mahajan & M. C. Gupta – Textbook of Preventive & Social Medicine

**SECTION B :- WOMEN’S HEALTH**

Didactic -30 hrs + Clinical – 10 hrs = 40 Hrs

**Syllabus**

**MUST TO KNOW AREA**

1. **Anatomy of female genital system and pelvic floor** 2 Hrs
2. **Menstrual cycle and its Disorders** 2 Hrs
3. **Pregnancy** 9 Hrs
   - Normal Gestations
   - Maternal Physiology in Pregnancy
   - Musculoskeletal disorders in Pregnancy
   - Antenatal Care
   - Prenatal and Perinatal Complications
• Labour- Stages, Normal & Complications
• Pain relief in Labour
• Post Natal – Puerperium, Lactation

4. **Menopause** 2 Hr
• Physiology
• Complications
• Effect on Various systems
• Management

5. **Uro-genital dysfunction** 4 Hrs
i. Uterine prolapse – classification & management
   (Conservative /Surgical)
ii. Cystocele, Rectocele, Enterocoele
iii. Urinary Incontinence: Types, Causes, Assessment and Management.
iv. Pelvic Inflammatory Diseases
v. Polycystic Ovarian Disease (PCOD)

6. **Surgical Procedures involving child birth** 2 Hr
• Caesarian Section
• Episiotomy

7. **Definition, Indications and Management of the following surgical procedures** 3 Hr
• Dilatation and Curettage
• Hysterectomy – Total Abdominal and Vaginal
• Salpingectomy and oopherectomy

**DESIRABLE TO KNOW AREA**
1. Multiple gestations 1 Hr

**NICE TO KNOW AREA**
1) Neoplasm of Female reproductive organs – surgical management 1 Hr
2) Sterility – management 2 Hr
3) Methods of family planning 2 Hr
CLINICAL  
10 Hrs

Evaluation & presentation of Two cases Each in
a) Uro-genital dysfunction
b) Antenatal care
c) Postnatal care
   i) Following normal labour
   ii) Following Caesarean section
d) Pelvic Inflammatory Diseases

OBSERVATION – One Normal & One Caesarian delivery, One case of Tubectomy & One Hysterectomy /Repair of the Uro-genital Prolapse.

Text Book:

INTERNAL ASSESSMENT-

1] Community Medicine (Terminal Theory) ------------ 40marks
2] Women’s Health (Terminal Theory) --------------- 40marks
3] Community Medicine (Prelim Theory) ----------- 40 marks
4] Women’s Health (Prelim Theory) – ----------------40 Marks
     Total -  160 marks

20 marks as the average of the total marks to be considered for internal assessment.
SCHEME OF EXAMINATION IN THE SUBJECT
“COMMUNITY MEDICINE & WOMEN’S HEALTH”

Community Medicine – 40 marks + Women’s Health – 40 marks = 80 marks + I.A. – 20 marks = Total 100 marks

Section A - M. C. Q. based on Single best answer in MUST KNOW area ---time 30 mins.
Q-1 Based on Community Medicine [1 x 10] -------------------10 marks
Q-2 Based on Women’s Health [1 x 10] ----------------------10 marks

Section B - Based on Community Medicine
Q-3 Answer Any THREE out of FOUR [3 x 5] ------------------15 marks
Q-4 L.A.Q.--------------------------------------------------- 15 marks

OR
Q-4- ---------------------------------------------------------- 15 marks

Section C - Based on Women’s Health
Q-3 Answer Any THREE out of FOUR [3 x 5] ------------------15 marks
Q-4 L.A.Q.--------------------------------------------------- 15 marks

OR
Q-5- ---------------------------------------------------------- 15 marks
RESEARCH METHODOLOGY & BIOSTATISTICS

[60 hrs]

(Didactic-40 hrs + Practical-20 hrs)
Objective – At the end of the course, the candidate shall
1] Gain knowledge of the basic concepts of Biostatistics & its need for professional practice & research.
2] Be able to describe an Overview-
a] Ethnography & Anthropology b] Design & Methodology of an Experiment or Survey

RESEARCH METHODOLOGY 20 Hrs

1. Introduction to Research methodology 2 Hrs
   • Meaning of research
   • Objectives of research
   • Motivation in research
   • Types of research & research approaches
   • Criteria for good research
   • Problems encountered by researchers in India.

2. Research Design 3 Hrs
   • Meaning of research design
   • Need for research design
   • Features for good design
   • Different research designs

3. Sampling Design 3 Hrs
   • Criteria for selecting sampling procedure
   • Steps in sampling design
   • Characteristics of good sample design
   • Different types of sample design
4. Measurement & scaling techniques  4 Hrs
   • Measurement in research- Measurement scales
   • Sources of error in measurement
   • Technique of developing measurement tools
   • Meaning of scaling, its classification.
   • Important scaling techniques.

5. Methods of data collection  3 Hrs
   • Collection of primary data
   • collection data through questionnaires & schedules
   • Difference between questionnaires & schedules.

6. Testing of hypothesis  4 Hrs
   • What is hypothesis
   • Basic concepts concerning testing of hypothesis
   • Procedure of hypothesis testing
   • Measuring the power of hypothesis test,
   • Tests of hypothesis
   • Limitations of the tests of hypothesis

7. Computer technology  1 Hr
   • Introduction to Computers
   • Computers & researcher.

BIOSTATISTICS  (20 hrs)

Syllabus

MUST KNOW

1. Introduction  3 Hrs
   • Meaning, definition of statistics
   • Importance of the study of statistics
   • Branches of statistics
   • Statistics and health science including physiotherapy,
   • Variables and their types
   • Measurement scales.
2. **Tabulation of Data**  
   - Basic principles of graphical representation  
   - Types of diagrams – histograms, frequency polygons, smooth frequency polygon, cumulative frequency curve.,  
   - Normal probability curve.

3. **Measure of Central Tendency**  
   - Definition and calculation of mean, median, mode.  
   - Comparison of mean, median and mode

4. **Probability and Standard Distributions**  
   - Meaning of probability of standard distribution  
   - The binominal distribution  
   - The normal distribution  
   - Divergence from normality – skewness, kurtosis.

5. **Sampling techniques**  
   - Need for sampling - Criteria for good samples  
   - Procedures of sampling and sampling designs errors  
   - Sampling variation and tests of significance.

6. **Statistical Significance**  
   - Parametric tests: - t test,  
   - Non parametric tests: - chi square test, Mannvitney U test, Z test, Wilcoxons matched pair test  
   - Correlations

7. **Analysis of variance & covariance**  
   - Basic principle of Analysis of Variance ANOVA and Analysis of Co variance (ANACOVA)

**DESIRABLE TO KNOW**  
1] Demographic & vital statistics.  

**Text Books**  
1. B. K. Mahajan – Methods in Biostatistics  
2. Kulkarni, Bairde, Muzumdar – Manual of Biostatistics  
3. Elements of Health Statistics: Rao.N.S.N
8. Statistics in Psychology and education: Great and Henry
9. An Introduction to Gupta C.B. Statistical Methods, 1972: Ram Prasad & Sons
11. Research: Principles and Methods: L Denise F. Poli & Hungler
12. Fundamentals of Research, 4th Edn.: David J. fox

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

Section – B
Q-2-S.A.Q – Answer any FIVE out of six [5 X 3] 15 marks
Q-3-S.A.Q.– Answer any THREE out of four [3 x 5] 15 marks

INTERNAL ASSESSMENT –
Two papers – terminal and prelim examination of 40 marks each.
TOTAL 80 MARKS
Internal Assessment to be calculated out of 10 marks
DERMATOLOGY
(COLLEGE SUBJECT)

Didactic - 10 hrs + Clinical – 10 [20 hrs]

Objectives
At the end of the course, the student will
1] Be able to describe the Pathophysiology, Signs & Symptoms, Clinical Features, Examination & Management of Common Skin Conditions like Leprosy, Psoriasis, Vitiligo, Acne, Bacterial & Fungal Infections of the skin, Auto-Immune Disorders, H.I.V & Sexually Transmitted Diseases.

Syllabus:

**MUST TO KNOW AREA**

1] Structure, function and lesions of skin 1 Hr
2] Acne 1 Hr
3] Pigmentary disorders 1 Hr
   a] Localised  b] Gen. Pigmentary
4] Papula-squamous disorders 1 Hr
   a] Psoriasis, PR  b] Lichenplanus, PRP
5] Topical therapy in Dermatology & Hair disorders
   a] Alopecia  b] Hair deformity  c] Hirsutism 1 Hr

**NICE TO KNOW AREA**

1] Bacterial (impetigo, carbuncle, SSSS) & Viral infections
   (a] Warts, Molluscum, Herpes, Hz, HSV) 1 Hr

2] Fungal infections 1 Hr
   a] Superficial – TC, TV  b] Deep fungal – Candidiasis,
3] Scabies, Pediculosis 1 Hr
5] Sexually Transmitted skin lesions 1 Hr
**THEORY** – 50 marks

Section A
MCQ-Q-1 [MCQs based on MUST KNOW area] ------------ 20 marks

Section B
SAQ-Q-2 Answer any Five out of Six [ 5 x 3 ] ---------------15 marks

Q3 Answer any THREE out of Four [3 x 5 ] ---------------15 marks

**Grade** – A+: 75% & above, A: 66 to <75%; B+: 55 to <66%, B: 50 to <55%, C :< 50% [FFF]

**Passing in the subject is mandatory**

INTERNAL ASSESSMENT – One Theory examination of 50 marks to be conducted at the end of the term & Passing in the I.A. is mandatory

**PSYCHIATRY**
(COLLEGE SUBJECT)
**Didactic 10 hrs + Clinical 10 hrs = 20 hrs**

**Objective** At the end of the course, the candidate will be able to –
1] Enumerate various Psychiatry disorders with special emphasis to movement /Pain & ADL – describe the various causative factors &methods of assessment & Management
2] Acquire the knowledge in brief, about the pathological &etiological factors, signs /Symptoms &management of various Psychiatric conditions.
3] Describe in brief the various treatment modalities commonly used
Syllabus:

MUST TO KNOW AREA
1] Psychiatric History, classification and mental status examination 1 Hr
2] Organic mental disorders (delirium, dementia, organic amnestic syndrome and other organic mental disorders) 1 Hrs
3] Mood disorders (manic episodes, depressive episodes, bipolar mood disorders) 1 Hr
4] Neurotic stress related and somatoform disorders (Anxiety disorder, phobic anxiety disorders, obsessive compulsive disorders, adjustment disorders, dissociative disorders, somatoform disorders post-traumatic stress Disorder. 1 Hrs
5] Schizophrenia, delusional disorders and schizoaffective disorders. 1 Hr
6] Substance use disorders, sexual disorders, sleep disorders and eating disorders. 1 Hr
7] Child psychiatry, (mental retardation, developmental disorders, attention deficit, hyperkinetic disorder, enuresis, conduct disorders) 1 Hr
8] Disorders of adult personality and behavior (specific personality disorders, habit and impulse disorders, gender identity disorders) 1 Hrs
9] Stress, psychosomatic disorders, suicide, psychiatric emergencies and their management. 1 Hr
11] Psychopharmacological management, electroconvulsive therapy and other biological methods of treatment. 1 Hr

TEXT BOOK
2] Shah L.P. Handbook of Psychiatry
EXAMINATION SCHEME [Theory only]

*THEORY – 50 marks

Section A
MCQ-Q-1 [MCQs based on MUST KNOW area] -------------- 20 marks

Section B
SAQ-Q-2 Answer any Five out of Six [ 5 x 3 ] --------------- 15 marks
Q 3 Answer any THREE out of Four [3 x 5 ] --------------- 15 marks
Grade – A+: 75% & above, A: 66 to <75%: B+: 55 to <66%, B: 50 to < 55%, C :< 50% [FFF]

Passing in the subject is mandatory

III BPT University Examination Pattern

<table>
<thead>
<tr>
<th>Subject</th>
<th>Theory</th>
<th>I.A.</th>
<th>Total</th>
<th>Practical</th>
<th>IA</th>
<th>Total</th>
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<tr>
<td>1] Orthopaedics and Traumatology</td>
<td>80</td>
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<td>2] Neurology and Paediatrics</td>
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<td>3] Medicine</td>
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<td>4] General Surgery</td>
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<td>5] Physical Diagnosis &amp; Manipulative skills</td>
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<td>6] Community Medicine &amp; Women’s Health</td>
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<td>7] Research Methodology &amp; Biostatistics</td>
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