

**Syllabus for Siddha Maruthuva Arignar (BSMS) Course
(2013 SCHEME)**

Second Professional BSMS

UDAL KOORUGAL (ANATOMY) PAPER I

Total Hours : 100

I. OSTEOLOGY WITH APPLIED ANATOMY (30 hours)

1. General structure of bone and Ossification
2. Types of bones
3. Skull – Norma frontalis, Norma verticalis, Norma basalis, Norma lateralis, Norma occipitalis, Cranial fossa
4. Paranasal sinuses
5. Mandible
6. Hyoid bone
7. Vertebral column – Cervical, Thoracic, Lumbar, Sacrum and Coccyx - (Typical and atypical)
8. Ribs, Costal cartilages and Sternum
9. Bones of Upper limb – Clavicle, Scapula, Humerus, Radius, Ulna
10. Name and numbers of Carpal, Metacarpal and Phalanges
11. Bones of Lower limb – Hip bone, Comparison between male and female pelvis, Femur, Patella, Fibula, Tibia
12. Name and numbers of Tarsal, Metatarsal and Phalanges
13. Arches of foot

II. ARTHROLOGY WITH APPLIED ANATOMY (10 hours)

1. Classification of joints
2. Temporomandibular joint
3. Intervertebral joints
4. Shoulder joint
5. Elbow joint
6. Wrist joint
7. Hip joint
8. Knee joint
9. Ankle joint

III. MYOLOGY WITH APPLIED ANATOMY (20 hours)

1. Scalp
2. Muscles of facial expression
3. Muscles of mastication
4. Muscles of eye ball
5. Suprahyoid muscles
6. Infrahyoid muscles
7. Name of the Pre and Para vertebral muscles
8. Lattismus dorsi, Erector spinae, Trapezius, Rhomboideus major and minor, Name of other muscles of back
9. Pectoral region muscles

10. Scapular region muscles
11. Muscles of Arm
12. Muscles of Forearm
13. Name of muscles of hand
14. Intercostal muscles and diaphragm
15. Anterior and Posterior Abdominal wall muscles
16. Names of Pelvic floor and Perineal muscles
17. Gluteal muscles
18. Muscles of thigh
19. Muscles of leg
20. Name of the muscles involved in the formation of sole of foot

FOSSAE AND TRIANGLES*

(5 hours)

1. Triangles of neck
2. Axilla
3. Cubital fossa
4. Ischiorectal fossa
5. Inguinal Canal
6. Adductor Canal
7. Femoral triangle
8. Popliteal fossa

IV. ANGIOLOGY

(Origin, termination, course and branches/tributaries have to be studied)

ARTERIAL SYSTEM

(20 hours)

1. Aorta – Ascending aorta – Coronary arteries – Arch of aorta – Brachiocephalic trunk – Left and Right Common Carotid – Left and Right Subclavian arteries
2. External and Internal carotid arteries, Vertebral and Basilar arteries – Formation of Circle of Willis
3. Major Arteries in Upper limb – Axillary – Brachial – Radial – Ulnar arteries – Superficial and deep palmar arches
4. Thoracic aorta – Abdominal aorta
5. Common iliac – External and Internal iliac artery
6. Major arteries in Lower limb – Femoral – Popliteal – Anterior and Posterior Tibial Arteries – Dorsalis Pedis artery – Plantar arch

VENOUS SYSTEM

(10 hours)

1. Dural Venous Sinuses
2. External and Internal Jugular Vein
3. Veins of Upper limb – Dorsal Venous arch - Cephalic – Basilic – Median Cubital Vein
4. Coronary sinus
5. Veins of thorax – Brachiocephalic – Azygos – Hemi azygos – Accessory azygos

6. Superior and Inferior vena cava
7. Portal vein and Portacaval anastomosis
8. Veins of lower limb –Dorsal Venous arch – Great and small Saphenous – Anterior and Posterior Tibial Vein

V. LYMPHATICS **(5 hours)**

1. Cisterna Chyli – Thoracic duct – Right lymphatic duct (2 hrs.)
2. Axillary, Cervical, Inguinal lymph nodes and its drainage (3 hrs.)

PRACTICALS FOR UDAL KOORUGAL – I

Total Hours : 75

- | | |
|----------------------------|-------------------|
| 1. Whole body dissection. | (25 hours) |
| 2. Specimen demonstration. | (50 hours) |

REFERENCE BOOKS

1. Gray's Anatomy – 40th Edition
2. Text book of Anatomy – T.S. Ranganathan - 5th revised edition edition
3. Human Anatomy – B.D. Chaurasia - 4th Edition –
4. Text book of Anatomy – Inderbir Sing – Edition 5/e
5. Fundamentals of Human Anatomy – A.S. Moni
6. Atlas of Anatomy – Inderbir Sing

Distribution of Marks (Mark Weightage) for University Theory Examination

| | |
|--|------------------|
| OSTEOLOGY WITH APPLIED ANATOMY | 30 Marks |
| ARTHROLOGY WITH APPLIED ANATOMY | 10 Marks |
| MYOLOGY WITH APPLIED ANATOMY | 30 Marks |
| FOSSAE AND TRIANGLES | 5 Marks |
| ANGIOLOGY - ARTERIAL SYSTEM | 10 Marks |
| ANGIOLOGY - VENOUS SYSTEM | 10 Marks |
| LYMPHATICS | 5 Marks |
| Total | 100 Marks |

Distribution of Marks for University Practical Examination

| | |
|--------------|------------------|
| Practical | 70 Marks |
| Viva Voce | 20 Marks |
| Record | 10 Marks |
| Total | 100 Marks |

UDAL KOORUGAL (ANATOMY) PAPER II Total Hours : 100

I. NERVOUS SYSTEM **(40 hours)**

1. Meninges of brain and spinal cord
2. Cerebrum – Lobes, Surfaces, Poles, Fissures, Sulci and Gyri, Areas, Types of fibres, Corpus callosum and Internal capsule
3. Basal nuclei
4. Names of nuclei of Diencephalon
5. Thalamus, Hypothalamus – Parts, Nuclei and Connections
6. Location and boundaries of Ventricles
7. Formation and circulation of CSF
8. External and internal features of Brain stem
9. External and internal features of Cerebellum
10. External and internal features of Spinal cord including tracts
11. Cranial nerves
12. Formation of typical spinal nerves and intercostal nerves
13. Formation of Cervical, Brachial, Lumbar and Sacral plexus including branches
14. Name and location of Sympathetic and Parasympathetic ganglion

II. SPECIAL SENSES **(10 hours)**

1. Eye
2. Ear
3. Nose
4. Tongue
5. Skin

III. RESPIRATORY SYSTEM **(5 hours)**

1. Larynx
2. Trachea
3. Mediastinum
4. Pleura, Lungs and Bronchopulmonary segments

IV. CARDIOVASCULAR SYSTEM **(2 hours)**

1. Heart
2. Pericardium

V. DIGESTIVE SYSTEM **(20 hours)**

1. Oral cavity, Palate, Salivary glands
2. Structure and types of teeth
3. Pharynx
4. Oesophagus
5. Stomach
6. Small intestine
7. Large intestine
8. Peritoneum and its folds
9. Liver
10. Extra biliary apparatus
11. Pancreas

LYMPHOID ORGANS***(3 hours)**

1. Spleen
2. Thymus glands
3. Tonsils

VI. UROGENITAL SYSTEM**(15 hours)**

1. Kidney
2. Ureter
3. Urinary bladder
4. Male and female urethra
5. Male reproductive organs - Scrotum, Testies, Epididymis, Seminal vesicles, Vasdeferens, Spermatic cord, Prostate gland, Penis
6. Female reproductive organs – Uterus, Uterine tubes, Ovaries, External genitalia, Mammary glands

VII. ENDOCRINOLOGY**(5 hours)**

1. Pituitary gland
2. Pineal gland
3. Thyroid and Parathyroid
4. Adrenal gland

PRACTICALS FOR UDAL KOORUGAL – II**Total Hours : 100**

1. Whole body dissection **(25 hours)**
2. Specimen demonstration **(50 hours)**

REFERENCE BOOKS

1. Gray's Anatomy – 40th Edition
2. Text book of Anatomy – T.S. Ranganathan - 5th revised edition edition
3. Human Anatomy – B.D. Chaurasia - 4th Edition –
4. Text book of Anatomy – Inderbir Sing – Edition 5/e
5. Fundamentals of Human Anatomy – A.S. Moni
6. Atlas of Anatomy – Inderbir Sing

Distribution of Marks (Mark Weightage) for University Theory

Examination

| | |
|-----------------------|------------------|
| NERVOUS SYSTEM | 30 Marks |
| SPECIAL SENSES | 10 Marks |
| RESPIRATORY SYSTEM | 10 Marks |
| CARDIOVASCULAR SYSTEM | 10 Marks |
| DIGESTIVE SYSTEM | 20 Marks |
| LYMPHOID ORGANS | 5 Marks |
| UROGENITAL SYSTEM | 10 Marks |
| ENDOCRINOLOGY | 5 Marks |
| Total | 100 Marks |

Distribution of Marks for University Practical Examination

| | |
|--------------|------------------|
| Practical | 70 Marks |
| Viva Voce | 20 Marks |
| Record | 10 Marks |
| Total | 100 Marks |

UDAL THATHUVAM (PHYSIOLOGY) PAPER I

Total Hours : 50

1. Ninety six fundamental principles (Thathuvas) and its details. Five elements (lymbootham) – five sense organs (pori) – five senses (pulan) – Motor organs (Kanmendriyam) – Discriminative power of five senses (Gnanandriyam) – Four intellectual faculties (Karanam) – Wisdom of Self realization (Arivu) – Ten Vital channels (Dhasa nadi) – Ten vital Air (Dhasavayu) – five visceral cavities (Asayam) – five sheaths (Kosam) – Six vital centres of the Soul (Aatharas) - Three regions (Mandalam) – Three impurities of soul (malam), Three humours (Thodam) - Three physical bindings (Edanai) – Three cosmic qualities (gunam) - Two acts (Vinai) – Eight passions (Ragam) – Five states of consciousness (Avathai). **(5 hours)**
2. Five elements and its medical aspects. Creation of five elements – properties – five fold combination (panchikaranam) – Manifestation of five elements in our body (panchabootha koorugal (or) Purakaruvikal) – Relation between five elements & six tastes – Five elements and three humours – five elements and seven physical constituents. **(5 hours)**
3. Development of Embryo according to Siddhars' concepts. Role of five elements during fertilization, and intrauterine life – Different stages of foetal growth – sex determination & Determination of life span according to Siddhar's concept. **(5 hours)**
4. Three humoral theory Vatham:- Predominant locations – properties – physiological role. Functional varieties of vatham – Pranana – Udhanana – Samana – Abana – Vyana – Naga – Koorma – Kirukara – Devadhana – Dhananjeyana. Pitham:- Predominant locations – properties – physiological role. Functional varieties of pitham - Pasakam – Ranjakam – Sathakam – Aalokakam – prasakam. Kapham:- Predominant location – properties – physiological role Functional varieties of Kapham. – Avalampakam – Kilethakam – Pothakam – Tharpakam – Santhikam. Temperament of an individual Features of vatha temperament – pitha temperament – Kapha temperament. **(5 hours)**
5. Seven physical constituents: Nutrient juice (saram) – Blood (Chenneer) – Muscle (ooun) – fat & adipose tissue (kozhippu) – Bone & Teeth (Enbu) – Bone marrow & nervous tissue (Moolai) – Semen or ovum (Sukilam/suronitham) – their nature and functions. **(4 hours)**
6. Five sheaths (Kosangal) Physical sheath (Annamaya kosam) – Respiratory sheath (Piranamaya kosam) – Mental sheath (Manomaya kosam) – Intellectual sheath (vignanamaya kosam) – Blissful sheath (Ananthamaya kosam) **(3 hours)**
7. Physical sheath:- Composition of food materials – waste or excretory materials (Chakkai) – Nutrients – Tastes – Three vital units (Uyir thathu) – qualities (gunam) Taste:- Properties of six tastes – Synergetic taste (natpu suvai) Antagonistic taste (pakai suvai) Vatha food – pitha food – Kapha food – Sathuva food – Rajasa food - Thamasa food – food and seasons. **(5 hours)**
8. Respiratory sheath:- Functions of pranana – Regulation of breathing – Pranayama thathuvam. **(5 hours)**

9. Mental sheath Siddhars concept of Nadi – Definitions – Characteristics of Nadi (Nadi Nadai) – Nadi ratio – Ten important sites of Nadi – Guru Nadi – Bootha Nadi – Vatha, pitha, Kapha nadi & conjoined nadi (Thondha Nadi) **(2 hours)**
10. Fourteen Natural Urges (Vehangal) Vatham (flatus air) – Thummal (sneezing) – Neer (micturition) – Malam (Defecation) – Kottavi (Yawning) – Pasi (appetite) – Neervetkai (Thirst) – Kasam (cough) – Illaippu (exhaustion) – Nithirai (sleep) – Vanthi (Vomiting) – Kanner (Tears) – Sukilam (semen) – Suvasam (Breathing). **(2 hours)**
11. Longevity of life – According to Siddha principles – Concentration of six Psychophysical centres (Aatharas) – Stimulation of Adharas by meditation & Yoga. **(2 hours)**
12. Intellectual sheath:- (Vingnana maya kosam) Four intellectual faculties (Anthakaranam) – Good & Bad Acts (Iruvinai) – Mukkunam (Satwa, Rajas & Thamas) – Aatharam (six station of soul) – Avathai (Six stages of consciousness) – Dhasa Nadi (Idakalai, Pinkalai, Suzhumunai, Sikuvai, Purudan, Kanthari, Atthi, Alampudai, Sankini & Gugu) **(2 hours)**
13. Blissful sheath (Anantha maya kosam) Self realization (Arivu) – achievement (Siddham) and its details **(2 hours)**
14. Envagai Thervu: Naa- Niram – Mozhi – Vizhi – Malam – Moothiram- Naadi – Sparisam- Physiological Aspect. **(3 hours)**

PRACTICAL

Total Hours : 50

Part-A

Major: **(30 hours)**

1. Examination of Naadi
2. Examination of Udal kattugal
3. Examination of Envagai Thervu
4. Examination of Udal iyal

Part-B

Minor: **(15 hours)**

1. Suvaigal
2. Panchabootha pancheekaram

Part- C:

Spotters: **(5 hours)**

1. Suvaigal
2. Unavu Poruttkal

Distribution of Marks (Mark Weightage) for University Theory

Examination

| | |
|-----------------------|------------------|
| Chapter – 1 | 10 Marks |
| Chapter – 2 | 5 Marks |
| Chapter – 3 | 10 Marks |
| Chapter – 4 | 10 Marks |
| Chapter – 5 | 10 Marks |
| Chapter – 6 & 7 | 10 Marks |
| Chapter – 8 | 10 Marks |
| Chapter – 9 | 10 Marks |
| Chapter – 10 | 10 Marks |
| Chapter – 11, 12 & 13 | 5 Marks |
| Chapter – 14 | 10 Marks |
| Total | 100 Marks |

Distribution of Marks for University Practical Examination

| | |
|--------------|------------------|
| Practical | 70 Marks |
| Viva Voce | 20 Marks |
| Record | 10 Marks |
| Total | 100 Marks |

UDAL THATHUVAM (PHYSIOLOGY) PAPER II

Total Hours : 100

I. General Physiology (4 hours)

1. Cell - organelles - Transport across cell membrane - Trans membrane electrical potential.
2. Homeostasis - Positive and negative feedback - Acid base balance.

II. Blood and Body fluids (20 hours)

1. Body fluids - ECF & ICF, plasma proteins - classification and functions.
2. Erythrocytes - Erythropoiesis - functions - destruction. Haemoglobin and 'Fe' metabolism, Anaemia, ESR, PCV, Blood indices.
3. Leucocytes - Classification, functions, formation, fate, plasma cells, Immunity
4. Thrombocytes - Hemostasis, Coagulation of Blood.
5. Blood groups, Blood transfusion - compatability.
6. Reticulo endothelial system, spleen, lymphatic system & lymph, tissue fluid & odema.
7. Applied physiology

III. Muscle Physiology (5 hours)

1. Functional anatomy of muscle, Classification, structure, Excitation, contraction and relaxation of smooth, skeletal and cardiac Muscles, Neuro muscular junction.
2. Applied physiology

IV. Renal physiology and Excretion. (10 hours)

1. Functional anatomy of kidney, Nephron, Renal circulation, juxta glomerular apparatus.
2. Urine formation, Glomerular filtration, Reabsorption of filtrate, Renal threshold, Urine concentrating mechanism, Role of kidney in Acid base balance. Filling of bladder and micturation, Action of parathormone & vasopressin. Renal Function Tests.
3. Skin - structure, functions, glands, Regulation on body temperature.
4. Applied physiology

V. Endocrinology (10 hours)

1. Introduction to endocrine physiology, control of secretion, feed back regulation.
2. Hormones secreted, Biosynthesis, functions and regulation of secretion of the following endocrine glands – Hypothalamus, pituitary, Thyroid, Parathyroid, Pancreas, Adrenal cortex and medulla, Local Hormones.
3. Applied physiology

VI. Reproductive systems (6 hours)

1. Sexual differentiation of foetus in uterus, Male sex organs, spermatogenesis, semen, Male sexual act, Male sex hormones, actions & control.
2. Female sex organs, Oogenesis, Menstrual cycle, role female sex hormones, Menopause.
3. Fertilization, Fetoplacental unit, Pregnancy, parturition, Mammary glands & lactation.

4. Applied physiology

VII. Digestive system (10 hours)

1. Functional anatomy of alimentary tract.
2. Mastication, salivary glands, composition & function of saliva, control of salivation, deglutition.
3. Secretion, composition, functions, control of secretion of Stomach, pancreas, Liver, small intestine.
4. Gall bladder, enterohepatic circulation, Motility of GIT, Digestion & absorption of carbohydrates, proteins, Lipids, Defecation.
5. Applied physiology

VIII. Cardio vascular system (10 hours)

1. Introduction – properties of cardiac muscle, conducting tissue of the heart, pacemaker, ionic basis of Action potential.
2. Cardiac cycle – phases & events, heart sounds, Murmur, ECG, Cardiac output and venous return, cardiac function curves, Regulation of cardiac function, Hemodynamics.
3. Arterial Blood pressure & its Regulation, Arterial pulse and venous pulse.
4. Foetal circulation and respiration, shock, cardio vascular adjustments during Exercise.
5. Applied physiology

IX. Respiratory and Environmental Physiology (10 hours)

1. Functional Anatomy of Respiratory tract, Mechanism of Respiration, Ventillation, Surfactant, Compliance, Spirometric volumes and capacities.
2. Exchange of Respiratory gases, Transport of O₂ and Co₂ in blood and tissue fluid.
3. Physiological effects of ascent to high altitudes, Acclimatization, Deep sea physiology. Effects of Exercise on Respiration.
4. Applied physiology

X. Nervous system (10 hours)

1. Functional anatomy of brain and spinal cord, Synapse , Neuroglial cells, degeneration and regeneration of Nerve fibers, Sensory receptors – classification, Threshold stimulus, Grouping of sensory fibres.
2. Reflex activity – Spinal reflexes, reciprocal inhibition, Muscle tone, Motor units.
3. Pathway and Function of Spinal Cord, Ascending & Descending tracts of spinal cord, upper motor neurons, control of muscle tone and voluntary movements, Physiology of Pain.
4. Nuclei, parts, connections and functions of Thalamus, Hypothalamus, basal ganglia, brain stem, limbic system, proprioceptor & vestibular apparatus.
5. Cerebral cortex – layers, connections, Functions of Cerebellum – morphology – nuclei, connections, functions.
6. Higher intellectual functions.
7. Reticular formation – physiology of sleep and arousal, EEG.
8. CSF – formation, circulation and functions.

9. ANS
10. Applied Physiology

XI. Special senses. (5 hours)

1. Functional anatomy of sense organ,
2. Eye – visual process – field of vision – visual path way – pupillary reflex- colour vision – Errors of Refraction.
3. Ear – Auditory Pathway. Mechanism of Hearing – Auditory Defects
4. Sensation of taste
5. Sensation of smell.
6. Applied physiology

PRACTICAL

Total Hours : 50

Part-A

Major: (25 hours)

1. Estimation of Haemoglobin
2. Determination of ESR
3. Determination of PCV & Absolute values
4. Total WBC Count
5. Total RBC Count
6. Differential count of WBC

Part-B

Minor: (22 hours)

1. Determination of bleeding time
2. Determination of clotting time
3. Blood grouping and Rh typing
4. Measurement of Body Temperature
5. Measurement of Blood Pressure
6. Examination of Deep Tendon Reflex (Specify)
7. Examination of Superficial Reflex(Specify)
8. Examination of Cranial Nerves(Specify)
9. Examination of Cardio vascular System(Specify)
10. Examination of Respiratory System(Specify)
11. Examination of Digestive System(Specify)

Part- C:

Spotters: (3 hours)

1. Parts of microscope
2. Apparatus
3. Identification of different type of WBC
4. ECG pattern

Reference Books :-

1. Samson and Wright applied Physiology
2. Hewer's Histology
3. Schafer's Histology
4. Guyton Physiology
5. Ganong Physiology
6. Essentials of Medical Physiology - Dr. K.S.Sembulingam
7. Text book of Physiology- Dr.Saratha Subramaniyam

Distribution of Marks (Mark Weightage) for University Theory

Examination

| | |
|----------------|------------------|
| Chapter – I | 5 Marks |
| Chapter – II | 15 Marks |
| Chapter – III | 5 Marks |
| Chapter – IV | 10 Marks |
| Chapter – V | 10 Marks |
| Chapter – VI | 10 Marks |
| Chapter – VII | 10 Marks |
| Chapter – VIII | 10 Marks |
| Chapter – IX | 10 Marks |
| Chapter – X | 10 Marks |
| Chapter – XI | 5 Marks |
| Total | 100 Marks |

Distribution of Marks for University Practical Examination

| | |
|--------------|------------------|
| Practical | 70 Marks |
| Viva Voce | 20 Marks |
| Record | 10 Marks |
| Total | 100 Marks |

GUNAPADAM-PAPER I (MOOLIGAI) (MATERIAMEDICA - PLANT KINGDOM)

Total Hours : 200

1) Introduction : (3 hours)

- i. Properties of drug
- ii. Taste, character, potency, post absorptive tastes (Vibagam)
- iii. Specific action (prabhagam)

2) Study about therapeutic actions with few examples. (3 hours)

3) Detailed study about the following herbs including their Synonyms, Botanical names, various names in regional languages, origin, identification, availability, parts used, description about their properties, therapeutic actions, indications, doses, home remedies and specific formulae related to particular herbs. (174 hours)

| Sl. No. | <u>Tamil Name</u> | <u>Botanical Name</u> |
|----------------|--------------------------|------------------------------|
| 1 | Agatti | - Sesbania grandiflora |
| 2 | Agil | - Aquilaria agallacha roxb |
| 3 | Akkarakaaram | - Anacylus pyrethrum DC |
| 4 | Asogu | - Saraca asoca |
| 5 | Athimathuram | - Glycyrrhiza glabra |
| 6 | Athividayam | - Aconitum heterophyllum |
| 7 | Atti | - Ficus recemosa |
| 8 | Aakasathamarai | - Pistia stratiotes |
| 9 | Anthimalli | - Mirabilis jalapa |
| 10 | Abini -Kasa Kasa | - Papaver somniferum |
| 11 | Amukkurakkizhangu | - Withania somnifera |
| 12 | Ammaan pachcharisi | - Euphorbia pilulifera |
| 13 | Ammaiyar koondhal | - Curcuta reflexa |
| 14 | Arasu | - Ficus religiosa |
| 15 | Arathai | - Alpinia galanga |
| 16 | Ari-val mookku patchilai | - Sida acuta |
| 17 | Arunelli | - Phyllanthus acidus |
| 18 | Alari | - Nerium odorum |
| 19 | Alli | - Nymphaea nouchali |
| 20 | Avarai | - Lablab purpureus |
| 21 | Avuri | - Indigofera tinctoria |
| 22 | Azhavanam | - Lawsonia inermis |
| 23 | Azhinjil | - Alangium salvifolium |
| 24 | Arugu | - Cynodon dactylon |
| 25 | Annasipoo | - Illicium verum |
| 26 | Aakaasagarudan | - Corallocarpus epigaeus |
| 27 | Aadathodai | - Justicia adatoda |
| 28 | Aadutheendapalai | - Aristolochia bracteolata |
| 29 | Aadaiyotti | - Pupalia orbiculata |
| 30 | Aathandam | - Capparis zeylanica |
| 31 | Aamanakku | - Ricinus communis |
| 32 | Chitraamanakku | - |

| Sl. No. | <u>Tamil Name</u> | <u>Botanical Name</u> |
|----------------|--------------------------|------------------------------|
| 33 | Peraamanakku | - Ricinus inermis |
| 34 | Chevvaamanakku | - Ricinus tanarius |
| 35 | Aayil | - Chukrasia tabularis |
| 36 | Aalamaram | - Ficus benghalensis |
| 37 | Aavarai | - Cassia auriculata |
| 38 | Aalivirai | - Lepidium sativum |
| 39 | Aattruthumatti | - Citrullus colocynthis |
| 40 | Iruvi | - Dryopteris felixmas |
| 41 | Isangu | - Clerodendrum inerme |
| 42 | Isappukol vidhai | - Plantago ovata |
| 43 | Inji | - Zingiber officinale |
| 44 | Indu | - Mimosa rubicaulis |
| 45 | Iththi | - Ficus microcarpa |
| 46 | Impooral | - Oldenlandia umbellata |
| 47 | Ireval chinni | - Rheum emodi |
| 48 | Ilanda maram | - Ziziphus mauritania |
| 49 | Lavangam | - Syzygium aromaticum |
| 50 | Lavangappattai | - Cinnamomum verum |
| 51 | Ilavamaram | - Bombax ceiba |
| 52 | Mul ilavu | - Bombax malabaricum |
| 53 | Iluppai | - Madhuca longifolia |
| 54 | Ilaikkalli | - Euphorbia ligularia |
| 55 | Eechu (Sitrechu) | - Phoenix sylvestris |
| 56 | Paereechu | - Phonex dactilifera |
| 57 | Echchura mooli | - Aristolochia indica |
| 58 | Usilamaram | - Albizia odoratissima |
| 59 | Uttamani | - Pergularia daemia |
| 60 | Uppilangodi | - Mimosa paniculata |
| 61 | Rudra jadai | - Ocimum basilicum |
| 62 | Rudraksham | - Elacocarpus sphacsicus |
| 63 | Urulai kizhangu | - Solanum tuberosum |
| 64 | Uzhundu | - Vigna mungo |
| 65 | OOmaththai | - Datura metal |
| 66 | Karu oomaththai | - |
| 67 | Aetti | - Strychnos nux-vomica |
| 68 | Aerukku | - Calotropis gigantea |
| 69 | Aelikkadilai | - Merremia emarginata |
| 70 | Aeliyamanakku | - Jatropha curcas |
| 71 | Aelumichai | - Citrus lemon |
| 72 | Aellu | - Sesamsum indicum |
| 73 | Aelam | - Elettaria cardamomum |
| 74 | Chitraelam | - Elettaria regains |
| 75 | Kattu – aelakkai | - Amomum subulatum |
| 76 | Malayelam | - |

| Sl. No. | <u>Tamil Name</u> | <u>Botanical Name</u> |
|----------------|--------------------------|--|
| 77 | Iyviral | - <i>Diplocyclos palmatus</i> |
| 78 | Odimaram | - <i>Lanea coromandelica</i> |
| 79 | Omam | - <i>Carum copticum</i> |
| 80 | Kurosani omam | - <i>Hyoscyamus niger</i> |
| 81 | Oritazhtamarai | - <i>Ionidium suffruticosum</i> |
| 82 | Orilai tamarai | - <i>Nervilia aragoana</i> |
| 83 | Kanja | - <i>Cannabis sativa</i> |
| 84 | Kadambu | - <i>Anthocephalus cadamba</i> |
| 85 | Kadalazhinjil | - <i>Salacia reticulata</i> |
| 86 | Kadalai | - <i>Cicer arietinum</i> |
| 87 | Kadarpasi | - <i>Gracilaria lichenoides</i> |
| 88 | Chengadugu | - <i>Brassica juncea</i> |
| 89 | Vengadugu | - <i>Brassica alba</i> |
| 90 | Kadugu rokani | - <i>Picrorhiza scrophulariflora</i> |
| 91 | Kadukkai | - <i>Terminalia chebula</i> |
| 92 | Kattukodi | - <i>Cocculus hirsutus</i> |
| 93 | Kanap-pundu | - <i>Exacum pedunculatum</i> |
| 94 | Kandangkattari | - <i>Solanum surattense</i> |
| 95 | Kandupaarangi | - <i>Clerodendron serratum</i> |
| 96 | Kathakambu | - <i>Uncaria gambir</i> |
| 97 | Kasthuri manjal | - <i>Curcuma aromatica</i> |
| 98 | Kamuku -Kalippakku | - <i>Areca catechu</i> |
| 99 | Kambu | - <i>Pennisetum typoideum</i> |
| 100 | Kottaikaranthai | - <i>Spaeranthus indicus</i> |
| 101 | Kaththari | - <i>Solanum melongena</i> |
| 102 | Karisalankanni | - <i>Eclipta prostrata</i> |
| 103 | Karungali | - <i>Acacia catechu</i> |
| 104 | Karunai thandu | - <i>Amarphophallus paeonic folius</i> |
| 105 | Karpooravalli | - <i>Aniso chilus carnosus</i> |
| 106 | Karumbu | - <i>Saccharum officinarum</i> |
| 107 | Karkadaga singhi | - <i>Rhus succedanea</i> |
| 108 | Kalappai kizhangu | - <i>Glorius superba</i> |
| 109 | Kaliyana pushnikai | - <i>Benincasa hispida</i> |
| 110 | Kaliyana murukku | - <i>Erythrina variegata</i> |
| 111 | Kazharchi kodi | - <i>Caesalpinia bonduc</i> |
| 112 | Kala | - <i>Carissa carandar</i> |
| 113 | Kalli | - <i>Euphorbia ligularia</i> |
| 114 | Kodikalli | - <i>Sarcosemma brevistigma</i> |
| 115 | Sadhurakalli | - <i>Euphorpia antiquorum</i> |
| 116 | Kalli-mulayan | - <i>Stapelia virgata</i> |
| 117 | Kari-vembu | - <i>Murraya koenigi</i> |
| 118 | Karpasi | - <i>Parmelia perlata</i> |
| 119 | Katrazhai | - <i>Aloe barbadensis</i> |
| 120 | Kariabolam | - <i>Aloe littoralis</i> |

| Sl. No. | <u>Tamil Name</u> | <u>Botanical Name</u> |
|----------------|--------------------------|------------------------------|
| 121 | Kaakkanam | - Clitoria ternatea |
| 122 | Kaakkai kolli | - Anamirta cocculus |
| 123 | Kaanchori | - Tragiainvolucrata |
| 124 | Kaattatti | - Bauhinia tomentosa |
| 125 | Kaattaamanakku | - Jatropha curcas |
| 126 | Kaappikottai | - Coffea arabica |
| 127 | Kaarai | - Catunaregum spinora |
| 128 | Kaarpokarisi | - Psoralea corylifolia |
| 129 | Kaalaan | - Agaricus campestris |
| 130 | Kitchilikizhangu | - Curcuma zeodaria |
| 131 | Kitchilipazham | - Citrus aurantium |
| 132 | Kiranthithakaram | - Tabernaemontana divaricata |
| 133 | Kiliyural | - |
| 134 | Kilukiluppai | - Crotalaria retusa |
| 135 | Keerippundu | - Ophiorrhiza mungos |
| 136 | Keeraikal | - Greens |
| 137 | Puthina | - Mentha arvensis |
| 138 | Puliyarai | - Oxalis corniculata |
| 139 | Manali keerai | - Gisekia pharnaceoides |
| 140 | Keeraithandu | - Amaranthus gangeticus |
| 141 | Keezhkaai nelli | - Phylanthus amarus |
| 142 | Kungiliam | - Shorea robusta |
| 143 | Kungumappoo | - Crocus sativus |
| 144 | Kudasappaalai | - Holarrhena pubescens |
| 145 | Kudiyottipoondu | - Argemone mexicana |
| 146 | Kunthrikkam | - Boswellia serrata |
| 147 | Kuppeimeni | - Acalypha indica |
| 148 | Kuruver | - Vetiveria zizanioides |
| 149 | Kurattai | - Trichosanthes tricuspidata |
| 150 | Kurinjan | - Gymnema sylvestre |
| 151 | Kuntri | - Abrus precatorius |
| 152 | Kaezhvaragu | - Eleusine coracana |
| 153 | Kodiveli | - Glycosmis arborea |
| 154 | Chenkodiveli | - Plumbago rosea |
| 155 | Kottikizhangu | - Aponogeton monostachyon |
| 156 | Koththumalli | - Coriandrum sativum |
| 157 | Kollu | - Macrotyloma uniflorum |
| 158 | Kollukkaivelai | - Tephrosia purpurea |
| 159 | Korukkaip-puli | - Pithecellobium duke |
| 160 | Konrai-Sarak-Konrai | - Cassia fistula |
| 161 | Sirukonrai | - Cassia arborescens |
| 162 | Senkonrai | - Cassia margiuata |
| 163 | Kottam | - Costus speciosus |
| 164 | Gothumai | - Triticum aestivum |

| Sl. No. | <u>Tamil Name</u> | <u>Botanical Name</u> |
|----------------|--------------------------|------------------------------|
| 165 | Korai | - Cyperus rotandus |
| 166 | Kovai | - Coccinia grandis |
| 167 | Gowrivalpul | - |
| 168 | Sadamaanji | - Nardostachys grandiflora |
| 169 | Shenbagam | - Michelia champaca |
| 170 | Chathakuppai | - Anethum graveolens |
| 171 | Chaarana | - Trianthema decandra |
| 172 | Chandanam | - Santalum album |
| 173 | Naattu jadhikai | - Myristica fragrans |
| 174 | Chaathipaththiri | - Myristica fragrans |
| 175 | Saamai | - Panicum sumatrense |
| 176 | Shaambrani | - Styrax benzoin |
| 177 | Salaamisri | - Orchis latifolia |
| 178 | Sivathai | - Operculina turpethum |
| 179 | Shivanar vembu | - Indigofera aspalathoides |
| 180 | Chirunaagapoo | - Mesua nagassarium |
| 181 | Chirupeyathi | - Ficus hispida |
| 182 | Chitramutti | - Pavonia zeylanica |
| 183 | Peramutti | - Pavonia odorata |
| 184 | Chinni | - Acalypha fruticosa |
| 185 | Cheekai | - Acacia sinuata |
| 186 | Seendhil | - Tinospora cordifolia |
| 187 | Porseendhil | - |
| 188 | Seemai athi | - Ficus carica |
| 189 | Cheerakam | - Cuminum cyminum |
| 190 | Karuncheerakam | - Nigella sativa |
| 191 | Peruncheerakam | - Pimpinella anisum |
| 192 | Kaattu cheerakam | - Vernonia antihelmintica |
| 193 | Chukku | - Zingiber officinale |
| 194 | Chundai | - Solanum torvum |
| 195 | Churai | - Lagenaria siceraria |
| 196 | Chemparuthi | - Hibiscus rosa-sinensis |
| 197 | Chemparathai | - Gossypium arboreum |
| 198 | Chembai | - Sesbania sesban |
| 199 | Cheruppadi | - Mollugo lotoides |
| 200 | Cheviyam | - Piper nigrum |
| 201 | Sembu | - Colocasia esculenta |
| 202 | Cherankottai | - Semecarpus anacardium |
| 203 | Cholam | - Sorghum vulgare |
| 204 | Thakarai (Usithakarai) | - Cassia tora |
| 205 | Thakkali | - Physalis minima |
| 206 | Manathathakkali | - Solanum nigrum |
| 207 | Thannirvittan kizhangu | - Asparagus racemosus |
| 208 | Tharuppai | - Desmostachya bipinnata |

| Sl. No. | <u>Tamil Name</u> | <u>Botanical Name</u> |
|----------------|--------------------------|------------------------------|
| 209 | Thavasurungai | - Rungia parviflora |
| 210 | Thazhuthazhai | - Clerodendrum phlomoidis |
| 211 | Thaamarai | - Nelumbo nucifera |
| 212 | Thaazhai | - Pandanus odoratissimus |
| 213 | Thaalisa-paththiri | - Abies spectabilis |
| 214 | Thaantri | - Terminalia bellirica |
| 215 | Thippili | - Piper longum |
| 216 | Thippiliver | - Piper longum |
| 217 | Thirakshai | - Vitis vinifera |
| 218 | Thinai | - Setaria italica |
| 219 | Thutthi | - Abutilon indicum |
| 220 | Thuvarai | - Cajanus cajan |
| 221 | Thumbai | - Leucas aspera |
| 222 | Thulasi | - Ocimum sanctum |
| 223 | Thuthuvelai | - Solanum trilobatum |
| 224 | Thengumaram | - Cocos nucifera |
| 225 | Thelkodu | - Heliotropium indicum |
| 226 | Devadaru | - Cedrus deodara |
| 227 | Thettran | - Strychnos potatorum |
| 228 | Thottar Chinungi | - Mimosa pudica |
| 229 | Nancharuppan | - Tylophora indica |
| 230 | Naththaichuri | - Spermocoe hispida |
| 231 | Naralai | - Cayratia pedata |
| 232 | Nanthiavattam | - Tabernaemontana divaricata |
| 233 | Nannaari | - Hemidesmus indicus |
| 234 | Naagamalli | - Rhinacanthus nasuta |
| 235 | Naabi | - Aconitum napellus |
| 236 | Naayuruvi | - Achyranthes aspera |
| 237 | Naaval | - Syzygium cumini |
| 238 | Nilavembu | - Andrographis paniculata |
| 239 | Nila vaarai | - Cassia senna |
| 240 | Neeradimuthu | - Hydnocarpus laurifolia |
| 241 | Neermulli | - Hygrophila auriculata |
| 242 | Nuna | - Mosinda tinctoria |
| 243 | Neichatti | - Vernonia cinerea |
| 244 | Nerunjil | - Tribulus terrestris |
| 245 | Nel | - Oryza sativa |
| 246 | Nelli | - Phyllanthus emblica |
| 247 | Naervalam | - Croton tiglium |
| 248 | Notchi | - Vitex negundo |
| 249 | Payaru | - Vigna mungo |
| 250 | Pachillai | - Garcinia xanthochymus |
| 251 | Pappali | - Casica papaya |
| 252 | Pala | - Artocarpus heterophyllus |

| Sl. No. | <u>Tamil Name</u> | <u>Botanical Name</u> |
|----------------|--------------------------|------------------------------|
| 253 | Palasu | - Butea monosperma |
| 254 | Parangippattai | - Smilax china |
| 255 | Parppadaakam | - Hedyotis coryambose |
| 256 | Panai | - Horastrus fbellifer |
| 257 | Badampisin | - |
| 258 | Pathiri | - Stereospermum colais |
| 259 | Barelee | - Hordeum vulgara |
| 260 | Vetpaalai | - Wrightia tinctoria |
| 261 | Pirappan kizhangu | - Calanus rotang |
| 262 | Peetharoghani | - Coptis teeta |
| 263 | Peenarimaram | - Sterculia foetida |
| 264 | Paavattai | - Pavetta indica |
| 265 | Pidangunari | - Premma tomentosa |
| 266 | Pirandai | - Cissus quadrangularis |
| 267 | Chirupeelai | - Aerva lanata |
| 268 | Pugaiyilai | - Nicotiana tobacum |
| 269 | Pungu | - Pongamia pinnata |
| 270 | Pulluruvi | - Dendrophthoe falcata |
| 271 | Puli | - Tamarindus indicus |
| 272 | Pulladi | - Desmodium gangeticum |
| 273 | Puvarasu | - Thespesia populnea |
| 274 | Poonaikali | - Mucuna pruriens |
| 275 | Perungayam | - Ferula asafetida |
| 276 | Poduthalai | - Phyta nodiflora |
| 277 | Ponnanganni | - Alternanthera sessils |
| 278 | Magizh | - Mimusops elengi |
| 279 | Mangusthan | - Garcinia mangostana |
| 280 | Manjal | - Curcuma longa |
| 281 | Mara manjal | - Coscinium fenestratum |
| 282 | Manjitti | - Rubia cordifolia |
| 283 | Madhanakamappu | - Cycus circinalis |
| 284 | Mantharai (red) | - Bauhinia purpurea |
| 285 | Malli | - Jasminum grandiflorum |
| 286 | Marakkarai | - Catunaregum spinosa |
| 287 | Maruthu | - Terminalia arjuna |
| 288 | Maa | - Mangifera indica |
| 289 | Masikkai | - Quercus infectoria |
| 290 | Masipathiri | - Artemisia nilagisica |
| 291 | Mathulai | - Punica granatum |
| 292 | Milagu | - Piper nigrum |
| 293 | Vaal milagu | - Piper cubeba |
| 294 | Milakaranai | - Todalial asiatica |
| 295 | Musumusukkai | - Mukia madraspatana |
| 296 | Mudakkatran | - Cardiospermum helicacabum |

| Sl. No. | <u>Tamil Name</u> | <u>Botanical Name</u> |
|----------------|--------------------------|------------------------------|
| 297 | Murungai | - Moringa oleifera |
| 298 | Mulaam | - Citrullus vulgaris |
| 299 | Munnai | - Premna corymbosa |
| 300 | Mukkirattai | - Boerhavia diffusa |
| 301 | Mungkil | - Bambusa arundinacea |
| 302 | Vasambu | - Acorus calamus |
| 303 | Vandukolli | - Cassia alata |
| 304 | Varagu | - Paspalum scrobiculatum |
| 305 | Valampurikkai | - Helicteres isora |
| 306 | Vallarai | - Centella asiatica |
| 307 | Vallaikodi | - Convolvulus repens |
| 308 | Vaadhanarayan | - Delonix elata |
| 309 | Vaavidangum | - Embelia ribes |
| 310 | Vaaluzhuvai | - Celestrus paniculatus |
| 311 | Vaazhai | - Musa paradisiaca |
| 312 | Vidathari | - Dichrostachys cinerea |
| 313 | Viraali | - Dodonaea viscosa |
| 314 | Vilvam | - Aegle marmeoles |
| 315 | Vilamichamver | - Plectranthus vettiveroides |
| 316 | Vizhuthi | - Cadaba trifoliata |
| 317 | Vilaamaram | - Limonia acidissima |
| 318 | Vishamungkil | - Crinum asiaticum |
| 319 | Vishnukiranthi | - Evolvulus alsinoides |
| 320 | Vengayam | - Allium cepa |
| 321 | Vetchi | - Ixora coccia |
| 322 | Vendakai | - Abelmoschus esculantus |
| 323 | Vendhayam | - Trigonella foenum |
| 324 | Vellarikai | - Cucumis sativus |
| 325 | Vellarugu | - Enicostemma axillare |
| 326 | Vellilothram | - Symplocos racemosa |
| 327 | Vellulli | - Allium sativum |
| 328 | Vettilai | - Piper betle |
| 329 | Vembu | - Azadirachta indica |
| 330 | Verkadalai | - Arachis hypogea |
| 331 | Vel | - Acacia nilotica |
| 332 | Velvel | - Acacia leucophloea |
| 333 | Kudaivel | - Acacia latronum |
| 334 | Peekkaruvel | - Acacia farnesiana |
| 335 | Velai | - Cleome viscosa |
| 336 | Thaivelai | - Gynandropsis gynandra |

The following plants which are comparatively less important and can be studied by the students themselves with guidance of the teacher. **(20 hours)**

| Sl. No. | <u>Tamil Name</u> | <u>Botanical Name</u> |
|----------------|--------------------------|------------------------------|
| 1 | Akrottu | - Juglans regia lin. |
| 2 | Alisi virai | - Linum usitatissimum |
| 3 | Arukeerai | - Amaranthus tristis |
| 4 | Annasipazham | - Ananas comosus |
| 5 | Aaraikirai | - Marsilea quadrifolia |
| 6 | Alapagoda pazham | - Prunus domestica |
| 7 | Aal-vallikizhangu | - Manihot esculenta |
| 8 | Aattrunetti | - Neptunia oleracea |
| 9 | Aanai-katrzhai | - Agave americana |
| 10 | Aanai kunri | - Adenantha pavonina |
| 11 | Aanaipuliamaram | - Adansonia digitata |
| 12 | Rattai – peimarutti | - Anisomeles malabarica |
| 13 | Rathabolam | - Aloe barbadensis |
| 14 | Ezhathalari | - Plumeria rubra |
| 15 | Uka | - Salvadora persica |
| 16 | Uzhalathi | - |
| 17 | Usilam | - |
| 18 | Aerisalai | - |
| 19 | Aelumichan thulasi | - Ocimum gratissimum |
| 20 | Aezhilapalai | - Alstonia scholaris |
| 21 | Odukkam | - Cleistanthus collinus |
| 22 | Kakkarikikai | - Cucumis sativus |
| 23 | Kasa-kasa | - Papaver somniferum |
| 24 | Kadarpaalai | - Argyreia nervosa |
| 25 | Kadar thengai | - Lodoicea maldivica |
| 26 | Kadara naaraththai | - Citrus medica |
| 27 | Kalumichchamkai | - |
| 28 | Kavizh thumbai | - Trichodesma indicum |
| 29 | Kazhu-neer | - Nymphaea alba |
| 30 | Kalarva | - Salvadora persica |
| 31 | Chirukalarva | - Salvadora persica |
| 32 | Karkovai | - Melothria heterophylla |
| 33 | Kartaamarai | - Smilax zeylanica |
| 34 | Kaasa | - Memecylon umbellatum |
| 35 | Kaasi rathnam | - Quamoclit pennata |
| 36 | Kaattu aelumichchai | - Atalantia malabarica |
| 37 | Kaattu aellu | - Sesamum prostratum |
| 38 | Kaattu kadugu | - Cleome viscosa |
| 39 | Kaattu karuvappattai | - Cinnamomum iners |
| 40 | Kaattu thumbai | - |
| 41 | Kaattu paagal | - Momordica dioica |

| Sl. No. | <u>Tamil Name</u> | <u>Botanical Name</u> |
|----------------|--------------------------|------------------------------|
| 42 | Kaattu peipudal | - Trichosanthes lobata |
| 43 | Kaattu mullangi | - Blumea lacera |
| 44 | Kaattu Vengayam | - Urginea indica |
| 45 | Kai-vallikkodi | - Dioscorea alata |
| 46 | Kaaramani | - Vigna unguiculata |
| 47 | Kaavatambul | - Cymbopogon martinic |
| 48 | Kiranthinayagam | - |
| 49 | Kumizhamaram | - Gmelina arborea |
| 50 | Kurukkaththi | - Hiptage benghalensis |
| 51 | Kuruvich-chi | - Ehretia microphylla |
| 52 | Kuthan Kuthambai | - Cantana indica |
| 53 | Kuntharpanai | - Caryota urens |
| 54 | Kuvaikkizhangu | - Maranta arundinacea |
| 55 | Koththavarai | - Cyamopsis tetragonoloba |
| 56 | Kodaga salai | - Rungia repens |
| 57 | Gopuram thangi | - Andrographis echiodes |
| 58 | Chanappu | - Crotalaria juncea |
| 59 | Sanninayagam | - |
| 60 | Chavukkumaram | - Casuarina equisetifolia |
| 61 | Samanthipoo | - Chrysanthemum coronarium |
| 62 | Chayamaram | - Caesalpinia sappan |
| 63 | Chavvarisimaram | - |
| 64 | Chaarai paruppu | - Buchanania lanzan |
| 65 | Chinnikizhangu | - |
| 66 | Chukkankai | - |
| 67 | Chukkan kirai | - Rumex vesicarius |
| 68 | Chulukku nayagam | - |
| 69 | Suriyakanthi | - Helianthus annus |
| 70 | Cheppu – nerunjil | - Indigofera enneaphylla |
| 71 | Chevaganar kizhangu | - Gloriosa superba |
| 72 | Peyavarai | - Cassia occidentalis |
| 73 | Thakkolam | - |
| 74 | Tamaraththam | - Avarrhoa carambola |
| 75 | Thara | - Fumaria parviflora |
| 76 | Thalippanai | - Corypha umbraculifera |
| 77 | Thillai | - Excoecaria agallocha |
| 78 | Thumbilkkai | - Diospyros peregrina |
| 79 | Thurinjibeen | - Alhagi maurorum |
| 80 | Thekku | - Tectona grandis |
| 81 | Naruvili | - Cordia dichotoma |
| 82 | Naaganam | - |
| 83 | Naagathali | - Opuntia dillenii |
| 84 | Naanal | - Saccharum spontaneum |
| 85 | Nilakkadambu | - Asarum europaeum |

| Sl. No. | <u>Tamil Name</u> | <u>Botanical Name</u> |
|----------------|--------------------------|------------------------------|
| 86 | Nilakumizh | - Gmelina asiatica |
| 87 | Nilappanai | - Curculigo orchioides |
| 88 | Nilavaamanakku | - |
| 89 | NintraI chinungi | - |
| 90 | Neeralari | - Polygorum barbatum |
| 91 | Neerbrahmi | - Bacopa monnieri |
| 92 | Neerpula | - Phyllanthus reticulatus |
| 93 | Neermel neruppu | - Ammania baccifera |
| 94 | Nettilingam | - Polyalthia longifolia |
| 95 | Neithar kizhangu | - Nymphaea pubescens |
| 96 | Pannimonthan kizhangu | - Trapa natans |
| 97 | Paruththi | - Gossypium herbaceum |
| 98 | Motchai | - Lablab purpureus |
| 99 | Chemparuththi | - Gossypium arboretum |
| 100 | Parangikkai | - Cucurbita maxima |
| 101 | Panneerpoo | - Rosa centifolia |
| 102 | Paakal | - Momorchica charantia |
| 103 | Paalai | - Manikara hexandra |
| 104 | Piramiya vazhukkai | - Bacopa monniesi |
| 105 | Piraii | - Streblus asper |
| 106 | Pilimbi | - Averrhoa bilimbi |
| 107 | Pilavai kolli | - |
| 108 | Pudal | - Trichosanthes cucumesina |
| 109 | Punnai | - Calophyllum inophyllum |
| 110 | Ponmusuttai | - Sida acuta |
| 111 | Manippungu | - Sapindus lausifolia |
| 112 | Musarkaathilai | - Ipomea pes-caprae |
| 113 | Maavilangu | - Crateava magna |
| 114 | Munthiri | - Anacardium occidentale |
| 115 | Mullangi | - Raphanus sativus |
| 116 | Modagavalli | - Sterculia foetida |
| 117 | Valli | - Dioscorea esculenta |
| 118 | Chevalli | - Dioscorea purpurea |
| 119 | Vaagai | - Albizia lebbeck |
| 120 | Karuvaagai | - Albizia odoratissima |
| 121 | Vaadhumai | - Prunus dulcis |
| 122 | Vizhalarisi | - Seed of red grass |
| 123 | Peru-lavangappattai | - Cinnamomum macrocarpum |
| 124 | Peyatti | - Ficus hispida |
| 125 | Vengai | - Pterocarpus marsupium |
| 126 | Aruvada | - Ruta chalepensis |
| 127 | Ezhuttani poondu | - Launaea pinnatifida |
| 128 | Karimulli | - Solanum anguini |
| 129 | Kaanaam vaazhai | - Commelina benghalensis |

| Sl. No. | <u>Tamil Name</u> | | <u>Botanical Name</u> |
|----------------|--------------------------|---|------------------------------|
| 130 | Seeththa | - | Anona squamosa |
| 131 | Pallipundu | - | striga lutea |
| 132 | Valendrabolam | - | Commiphora myrrh |

Mooligai - Practicals.

Total Hours : 100

| | |
|---------------|------------------|
| 1. Manappagu | (8 hours) |
| 2. Kudineer | (8 hours) |
| 3. Chooranam | (8 hours) |
| 4. Vadagam | (8 hours) |
| 5. Nei | (8 hours) |
| 6. Rasaayanam | (8 hours) |
| 7. Ilagam | (8 hours) |
| 8. Maathirai | (8 hours) |
| 9. Vennai | (8 hours) |
| 10. Parpam | (8 hours) |
| 11. Thailam | (8 hours) |
| 12. Pasai | (8 hours) |
| 13. Theeneer | (4 hours) |

Reference Books

- 1) Gunapadam – Mooligai Vaguppu – by Dr. Murugesamudaliar
- 2) Materia Medica – Vol I & II – by Dr. Natkarani.
- 3) Mooligai Iyal – By – Dr.V.Arunachalam M.D.Siddha.

Distribution of Marks (Marks weightage) for University Theory Examination

Note: Serial No. of the plants as per CCIM syllabus.

- I. **60 marks** from the following plants – Important plants / Syllabus New Scheme 2013
 1. Agatti - Sesbania grandiflora
 2. Agil - Aquilaria agallacha roxb
 3. Akkarakaaram - Anacylus pyrethrum DC
 4. Asogu - Saraca asoca
 5. Athimathuram - Glycyrrhiza glabra
 6. Athividayam - Aconitum heterophyllum
 10. Abini -Kasa Kasa - Papaver somniferum
 11. Amukkurakkizhangu - Withania somnifera
 14. Arasu - Ficus religiosa
 15. Arathai - Alpinia galanga
 18. Alari - Nerium odorum
 20. Avarai - Lablab purpureus
 21. Avuri - Indigofera tinctoria
 22. Azhavanam - Lawsonia inermis

| | | |
|-------------------------|---|--------------------------------------|
| 24. Arugu | - | <i>Cynodon dactylon</i> |
| 27. Aadathodai | - | <i>Justicia adatoda</i> |
| 31. Aamanakku | - | <i>Ricinus communis</i> |
| 32. Chitraamanakku | - | |
| 36. Aalamaram | - | <i>Ficus benghalensis</i> |
| 37. Aavarai | - | <i>Cassia auriculata</i> |
| 40. Iruvi | - | <i>Dryopteris felixmas</i> |
| 43. Inji | - | <i>Zingiber officinale</i> |
| 46. Impooral | - | <i>Oldenlandia umbellata</i> |
| 49. Lavangam | - | <i>Syzygium aromaticum</i> |
| 50. Lavangappattai | - | <i>Cinnamomum verum</i> |
| 53. Iluppai | - | <i>Madhuca longifolia</i> |
| 56. Paereechu | - | <i>Phonex dactilifera</i> |
| 57. Echchura mooli | - | <i>Aristolochia indica</i> |
| 59. Uttamani | - | <i>Pergularia daemia</i> |
| 62. Rudraksham | - | <i>Elacocarpus sphacsicus</i> |
| 64. Uzhundu | - | <i>Vigna mungo</i> |
| 65. Oomaththai | - | <i>Datura metal</i> |
| 67. Aetti | - | <i>Strychnos nux-vomica</i> |
| 68. Aerukku | - | <i>Calotropis gigantea</i> |
| 71. Aelumichai | - | <i>Citrus lemon</i> |
| 72. Aellu | - | <i>Sesamum indicum</i> |
| 73. Aelam | - | <i>Elettaria cardamomum</i> |
| 79. Omam | - | <i>Carum copticum</i> |
| 83. Kanja | - | <i>Cannabis sativa</i> |
| 86. Kadalai | - | <i>Cicer arietinum</i> |
| 88. Chengadugu | - | <i>Brassica juncea</i> |
| 89. Vengadugu | - | <i>Brassica alba</i> |
| 91. Kadukkai | - | <i>Terminalia chebula</i> |
| 94. Kandangkattari | - | <i>Solanum surattense</i> |
| 97. Kasthuri manjal | - | <i>Curcuma aromatica</i> |
| 102. Karisalankanni | - | <i>Eclipta prostrata</i> |
| 103. Karungali | - | <i>Acacia catechu</i> |
| 104. Karunai thandu | - | <i>Amarphophallus paeonic folius</i> |
| 105. Karpooravalli | - | <i>Aniso chilus carnosus</i> |
| 106. Karumbu | - | <i>Saccharum officinarum</i> |
| 107. Karkadaga singhi | - | <i>Rhus succedanea</i> |
| 108. Kalappai kizhangu | - | <i>Glorius superba</i> |
| 109. Kaliyana pushnikai | - | <i>Benincasa hispida</i> |
| 111. Kazharchi kodi | - | <i>Caesalpinia bonduc</i> |
| 114. Kodikalli | - | <i>Sarcosemma brevistigma</i> |
| 119. Katrazhai | - | <i>Aloe barbadensis</i> |
| 120. Kariabolam | - | <i>Aloe littoralis</i> |
| 121. Kaakkanam | - | <i>Clitoria ternatea</i> |

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| 128. Kaarpokarisi | - | <i>Psoralea corylifolia</i> |
| 142. Kungiliam | - | <i>Shorea robusta</i> |
| 143. Kungumappoo | - | <i>Crocus sativus</i> |
| 144. Kudasappaalai | - | <i>Holarrhena pubescens</i> |
| 146. Kunthrikkam | - | <i>Boswellia serrata</i> |
| 147. Kuppeimeni | - | <i>Acalypha indica</i> |
| 153. Kodiveli | - | <i>Glycosmis arborea</i> |
| 154. Chenkodiveli | - | <i>Plumbago rosea</i> |
| 156. Koththumalli | - | <i>Coriandrum sativum</i> |
| 160. Konrai-Sarak-Konrai | - | <i>Cassia fistula</i> |
| 163. Kottam | - | <i>Costus speciosus</i> |
| 168. Sadamaanji | - | <i>Nardostachys grandiflora</i> |
| 172. Chandanam | - | <i>Santalum album</i> |
| 176. Shaambrani | - | <i>Styrax benzoin</i> |
| 179. Shivanar vembu | - | <i>Indigofera aspalathoides</i> |
| 186. Seendhil | - | <i>Tinospora cordifolia</i> |
| 189. Cheerakam | - | <i>Cuminum cyminum</i> |
| 190. Karuncheerakam | - | <i>Nigella sativa</i> |
| 191. Peruncheerakam | - | <i>Pimpinella anisum</i> |
| 192. Kaattu cheerakam | - | <i>Vernonia antihelmintica</i> |
| 193. Chukku | - | <i>Zingiber officinale</i> |
| 202. Cherankottai | - | <i>Semecarpus anacardium</i> |
| 207. Thannirvittan kizhangu | - | <i>Asparagus racemosus</i> |
| 210. Thazhuthazhai | - | <i>Clerodendrum phlomoidis</i> |
| 211. Thaamarai | - | <i>Nelumbo nucifera</i> |
| 213. Thaalisa-paththiri | - | <i>Abies spectabilis</i> |
| 214. Thaantri | - | <i>Terminalia bellirica</i> |
| 215. Thippili | - | <i>Piper longum</i> |
| 219. Thutthi | - | <i>Abutilon indicum</i> |
| 221. Thumbai | - | <i>Leucas aspera</i> |
| 222. Thulasi | - | <i>Ocimum sanctum</i> |
| 223. Thuthuvelai | - | <i>Solanum trilobatum</i> |
| 224. Thengumaram | - | <i>Cocos nucifera</i> |
| 225. Thelkodukku | - | <i>Heliotropium indicum</i> |
| 226. Devadaru | - | <i>Cedrus deodara</i> |
| 227. Thettran | - | <i>Strychnos potatorum</i> |
| 228. Thottar Chinungi | - | <i>Mimosa pudica</i> |
| 229. Nancharuppan | - | <i>Tylophora indica</i> |
| 230. Naththaichuri | - | <i>Spermacoce hispida</i> |
| 232. Nanthiavattam | - | <i>Tabernaemontana divaricata</i> |
| 233. Nannaari | - | <i>Hemidesmus indicus</i> |
| 235. Naabi | - | <i>Aconitum napellus</i> |
| 236. Naayuruvi | - | <i>Achyranthes aspera</i> |
| 237. Naaval | - | <i>Syzygium cumini</i> |
| 238. Nilavembu | - | <i>Andrographis paniculata</i> |

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| 239. Nila vaarai | - | Cassia senna |
| 240. Neeradimuthu | - | Hydnocarpus laurifolia |
| 241. Neermulli | - | Hygrophila auriculata |
| 242. Nuna | - | Mosinda tinctoria |
| 244. Nerunjil | - | Tribulus terrestris |
| 246. Nelli | - | Phyllanthus emblica |
| 247. Naervalam | - | Croton tiglium |
| 248. Notchi | - | Vitex negundo |
| 251. Pappali | - | Casica papaya |
| 253. Palasu | - | Butea monosperma |
| 254. Parangippattai | - | Smilax china |
| 255. Parppadaakam | - | Hedyotis coryambose |
| 260. Vetpaalai | - | Wrightia tinctoria |
| 266. Pirandai | - | Cissus quadrangularis |
| 267. Chirupeelai | - | Aerva lanata |
| 268. Pugaiyilai | - | Nicotiana tobacum |
| 269. Pungu | - | Pongamia pinnata |
| 273. Puvarasu | - | Thespesia populnea |
| 274. Poonaikali | - | Mucuna pruriens |
| 275. Perungayam | - | Ferula asafetida |
| 276. Poduthalai | - | Phyta nodiflora |
| 277. Ponnanganni | - | Alternanthera sessilis |
| 280. Manjal | - | Curcuma longa |
| 287. Maruthu | - | Terminalia arjuna |
| 288. Maa | - | Mangifera indica |
| 289. Masikkai | - | Quercus infectoria |
| 290. Masipathiri | - | Artemisia nilagisica |
| 291. Mathulai | - | Punica granatum |
| 292. Milagu | - | Piper nigrum |
| 295. Musumusukkai | - | Mukia madraspatana |
| 297. Murungai | - | Moringa oleifera |
| 300. Mukkirattai | - | Boerhavia diffusa |
| 302. Vasambu | - | Acorus calamus |
| 306. Vallarai | - | Centella asiatica |
| 309. Vaaividangum | - | Embelia ribes |
| 310. Vaaluzhuvai | - | Celestrus paniculatus |
| 311. Vaazhai | - | Musa paradisiaca |
| 314. Vilvam | - | Aegle marmelos |
| 323. Vendhayam | - | Trigonella foenum |
| 328. Vetrilai | - | Piper betle |
| 329. Vembu | - | Azadirachta indica |
| 336. Thaivelai | - | Gynandropsis gynandra |

II. **30 marks** from the following plants – Important plants / Syllabus New Scheme 2013

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| 7. Atti | - | <i>Ficus recemosa</i> |
| 8. Aakasathamarai | - | <i>Pistia stratiotes</i> |
| 9. Anthimalli | - | <i>Mirabilis jalapa</i> |
| 12. Ammaan pachcharisi | - | <i>Euphorbia pilulifera</i> |
| 13. Ammaiyaar koondhal | - | <i>Curcuma reflexa</i> |
| 16. Ari-val mookku patchilai | - | <i>Sida acuta</i> |
| 17. Arunelli | - | <i>Phyllanthus acidus</i> |
| 19. Alli | - | <i>Nymphaea nouchali</i> |
| 23. Azhinjil | - | <i>Alangium salvifolium</i> |
| 25. Annasipoo | - | <i>Illicium verum</i> |
| 26. Aakaasagarudan | - | <i>Corallocarpus epigaeus</i> |
| 28. Aadutheendapalai | - | <i>Aristolochia bracteolata</i> |
| 29. Aadaiyotti | - | <i>Pupalia orbiculata</i> |
| 30. Aathandam | - | <i>Capparis zeylanica</i> |
| 33. Peraamanakku | - | <i>Ricinus inermis</i> |
| 34. Chevvaamanakku | - | <i>Ricinus tanarius</i> |
| 35. Aayil | - | <i>Chukrasia tabularis</i> |
| 38. Aalivirai | - | <i>Lepidium sativum</i> |
| 39. Aattruthumatti | - | <i>Citrullus colocynthis</i> |
| 41. Isangu | - | <i>Clerodendrum inerme</i> |
| 42. Isappukol vidhai | - | <i>Plantago ovata</i> |
| 44. Indu | - | <i>Mimosa rubicaulis</i> |
| 45. Iththi | - | <i>Ficus microcarpa</i> |
| 47. Ireval chinni | - | <i>Rheum emodi</i> |
| 48. Ilanda maram | - | <i>Ziziphus mauritiana</i> |
| 51. Ilavamaram | - | <i>Bombax ceiba</i> |
| 52. Mul ilavu | - | <i>Bombax malabaricum</i> |
| 54. Ilaikkalli | - | <i>Euphorbia ligularia</i> |
| 55. Eechu (Sitrechu) | - | <i>Phoenix sylvestris</i> |
| 58. Usilamaram | - | <i>Albizia odoratissima</i> |
| 60. Uppilangodi | - | <i>Mimosa paniculata</i> |
| 61. Rudra jadai | - | <i>Ocimum basilicum</i> |
| 63. Urulai kizhangu | - | <i>Solanum tuberosum</i> |
| 66. Karu oomaththai | - | |
| 69. Aelikkadilai | - | <i>Merremia emarginata</i> |
| 70. Aeliyamanakku | - | <i>Jatropha curcas</i> |
| 74. Chitraelam | - | <i>Elettaria regains</i> |
| 75. Kattu – aelakkai | - | <i>Amomum subulatum</i> |
| 76. Malayelam | - | |
| 77. Iyviri | - | <i>Diplocyclos palmatus</i> |
| 78. Odimaram | - | <i>Lanea coromandelica</i> |
| 80. Kurosani omam | - | <i>Hyoscyamus niger</i> |
| 81. Oritazhtamarai | - | <i>Lonidium suffruticosum</i> |

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| 82. Orilai tamarai | - | Nervilia aragoana |
| 84. Kadambu | - | Anthocephalus cadamba |
| 85. Kadalazhinjil | - | Salacia reticulata |
| 87. Kadarpassi | - | Gracilaria lichenoides |
| 90. Kadugu rokani | - | Picrorhiza scrophulariflora |
| 92. Kattukodi | - | Cocculus hirsutus |
| 93. Kanap-pundu | - | Exacum pedunculatum |
| 95. Kandupaarangi | - | Clerodendron serratum |
| 96. Kathakambu | - | Uncaria gambir |
| 98. Kamuku -Kalippakku | - | Areca catechu |
| 99. Kambu | - | Pennisetum typoideum |
| 100. Kottaikaranthai | - | Spaeranthus indicus |
| 101. Kaththari | - | Solanum melongena |
| 110. Kaliyana murukku | - | Erythrina variegata |
| 112. Kala | - | Carissa carandar |
| 113. Kalli | - | Euphorbia ligularia |
| 115. Sadhurakalli | - | Euphorpia antiquorum |
| 116. Kalli-mulayan | - | Stapelia virgata |
| 117. Kari-vembu | - | Murraya koenigi |
| 118. Karpasi | - | Parmelia perlata |
| 122. Kaakkai kolli | - | Anamirta cocculus |
| 123. Kaanchori | - | Tragiainvolucrata |
| 124. Kaattatti | - | Bauhinia tomentosa |
| 125. Kaattaamanakku | - | Jatropha curcas |
| 126. Kaappikottai | - | Coffea arabica |
| 127. Kaarai | - | Catunaregum spinora |
| 129. Kaalaan | - | Agaricus campestris |
| 130. Kitchilikizhangu | - | Curcuma zeodaria |
| 131. Kitchilipazham | - | Citrus aurantium |
| 132. Kiranthithakaram | - | Tabernaemontana divaricata |
| 133. Kiliyural | - | |
| 134. Kilukiluppai | - | Crotalaria retusa |
| 135. Keerippundu | - | Ophiorrhiza mungos |
| 136. Keeraikal | - | Greens |
| 137. Puthina | - | Mentha arvensis |
| 138. Puliyarai | - | Oxalis corniculata |
| 139. Manali keerai | - | Gisekia pharnaceoides |
| 140. Keeraithandu | - | Amaranthus gangeticus |
| 141. Keezhkaai nelli | - | Phylanthus amarus |
| 145. Kudiyottipoondu | - | Argemone mexicana |
| 148. Kuruver | - | Vetiveria zizanoides |
| 149. Kurattai | - | Trichosanthes tricuspidata |
| 150. Kurinjan | - | Gymnema sylvestre |
| 151. Kuntri | - | Abrus precatorius |

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| 152. Kaezhvaragu | - | Eleusine coracana |
| 155. Kottikizhangu | - | Aponogeton monostachyon |
| 157. Kollu | - | Macrotyloma uniflorum |
| 158. Kollukkaivelai | - | Tephrosia purpurea |
| 159. Korukkaip-puli | - | Pithecellobium duke |
| 161. Sirukonrai | - | Cassia arborescens |
| 162. Senkonrai | - | Cassia margiuata |
| 164. Gothumai | - | Triticum aestivum |
| 165. Korai | - | Cyperus rotundus |
| 166. Kovai | - | Coccinia grandis |
| 167. Gowrivalpul | - | |
| 169. Shenbagam | - | Michelia champaca |
| 170. Chathakuppai | - | Anethum graveolens |
| 171. Chaaranai | - | Trianthema decandra |
| 173. Naattu jadhikai | - | Myristica fragrans |
| 174. Chaathipaththiri | - | Myristica fragrans |
| 175. Saamai | - | Panicum sumatrense |
| 177. Salaamisri | - | Orchis latifolia |
| 178. Sivathai | - | Operculina turpethum |
| 180. Chirunaagapoo | - | Mesua nagassarium |
| 181. Chirupeyathi | - | Ficus hispida |
| 182. Chitramutti | - | Pavonia zeylanica |
| 183. Peramutti | - | Pavonia odorata |
| 184. Chinni | - | Acalypha fruticosa |
| 185. Cheekai | - | Acacia sinuata |
| 187. Porseendhil | - | |
| 188. Seemai athi | - | Ficus carica |
| 194. Chundai | - | Solanum torvum |
| 195. Churai | - | Lagenaria siceraria |
| 196. Chemparuthi | - | Hibiscus rosa-sinensis |
| 197. Chemparathai | - | Gossypium arboreum |
| 198. Chembai | - | Sesbania sesban |
| 199. Cherupadi | - | Mollugo lotoides |
| 200. Cheyiyam | - | Piper nigrum |
| 201. Sembu | - | Colocasia esculenta |
| 203. Cholan | - | Sorghum vulgare |
| 204. Thakarai (Usithakarai) | - | Cassia tora |
| 205. Thakkali | - | Physalis minima |
| 206. Manathathakkali | - | Solanum nigrum |
| 208. Tharuppai | - | Desmostachya bipinnata |
| 209. Thavasurungai | - | Rungia parviflora |
| 212. Thaazhai | - | Pandanus odoratissimus |
| 216. Thippiliver | - | Piper longum |
| 217. Thirakshai | - | Vitis vinifera |

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| 218. Thinai | - | <i>Setaria italica</i> |
| 220. Thuvarai | - | <i>Cajanus cajan</i> |
| 231. Naralai | - | <i>Cayratia pedata</i> |
| 234. Naagamalli | - | <i>Rhinacanthus nasuta</i> |
| 243. Neichatti | - | <i>Vernonia cinerea</i> |
| 245. Nel | - | <i>Oryza sativa</i> |
| 249. Payaru | - | <i>Vigna mungo</i> |
| 250. Pachillai | - | <i>Garcinia xanthochymus</i> |
| 252. Pala | - | <i>Artocarpus heterophyllus</i> |
| 256. Panai | - | <i>Horstrus flbellifer</i> |
| 257. Badampisin | - | |
| 258. Pathiri | - | <i>Stereospermum colais</i> |
| 259. Parely | - | <i>Hordeum vulgare</i> |
| 261. Pirappan kizhangu | - | <i>Calanus rotang</i> |
| 262. Peetharoghani | - | <i>Coptis teeta</i> |
| 263. Peenarimaram | - | <i>Sterculia foetida</i> |
| 264. Paavattai | - | <i>Pavetta indica</i> |
| 265. Pidangunari | - | <i>Premna tomentosa</i> |
| 270. Pulluruvi | - | <i>Dendrophthoe falcata</i> |
| 271. Puli | - | <i>Tamarindus indicus</i> |
| 272. Pulladi | - | <i>Desmodium gangeticum</i> |
| 278. Magizh | - | <i>Mimusops elengi</i> |
| 279. Mangusthan | - | <i>Garcinia mangostana</i> |
| 281. Mara manjal | - | <i>Coscinium fenestratum</i> |
| 282. Manjitti | - | <i>Rubia cordifolia</i> |
| 283. Madhanakamappu | - | <i>Cycus circinalis</i> |
| 284. Mantharai (red) | - | <i>Bauhinia purpurea</i> |
| 285. Malli | - | <i>Jasminum grandiflorum</i> |
| 286. Marakkarai | - | <i>Catunaregum spinosa</i> |
| 293. Vaal milagu | - | <i>Piper cubeba</i> |
| 294. Milakaranai | - | <i>Todalia asiatica</i> |
| 296. Mudakkatran | - | <i>Cardiospermum helicacabum</i> |
| 298. Mulaam | - | <i>Citrullus vulgaris</i> |
| 299. Munnai | - | <i>Premna corymbosa</i> |
| 301. Mungkil | - | <i>Bambusa arundinacea</i> |
| 303. Vandukolli | - | <i>Cassia alata</i> |
| 304. Varagu | - | <i>Paspalum scrobiculatum</i> |
| 305. Valampurikkai | - | <i>Helicteres isora</i> |
| 307. Vallaikodi | - | <i>Convolvulus repens</i> |
| 308. Vaadhanarayan | - | <i>Delonix elata</i> |
| 315. Vilamichamver | - | <i>Plectranthus vettiveroides</i> |
| 316. Vzhuthi | - | <i>Cadaba trifoliata</i> |
| 317. Vilaamaram | - | <i>Limonia acidissima</i> |
| 318. Vishamungkil | - | <i>Crinum asiaticum</i> |

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| 319. Vishnukiranthi | - | Evolvulus alsinoides |
| 320. Vengayam | - | Alium cepa |
| 321. Vetchi | - | Ixora coccia |
| 322. Vendakai | - | Abelmoschus esculantus |
| 324. Vellarikai | - | Cucumis sativus |
| 325. Vellarugu | - | Enicostemma axillare |
| 326. Vellilothram | - | Symplocos racemosa |
| 327. Vellulli | - | Allium sativum |
| 330. Verkadalai | - | Arachis hypogea |
| 331. Vel | - | Acacia nilotica |
| 332. Velvel | - | Acacia leucophloea |
| 333. Kudaivel | - | Acacia latronum |
| 334. Peekkaruvel | - | Acacia farnesiana |
| 335. Velai | - | Cleome viscosa |
| 336. Thaivelai | - | Gynandropsis gynandra |

III. **10 marks** from the other plants and from the less Important plants / Syllabus New Scheme 2013

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| 1 | Akrottu | - | Juglans regia lin. |
| 2 | Alisi virai | - | Linum usitatissimum |
| 3 | Arukeerai | - | Amarantus tristis |
| 4 | Annasipazham | - | Ananas comosus |
| 5 | Aaraikirai | - | Marsilea quadrifolia |
| 6 | Alapagoda pazham | - | Prunus domestica |
| 7 | Aal-vallikizhangu | - | Manihot esculenta |
| 8 | Aattrunetti | - | Neptunia oleracea |
| 9 | Aanai-katrazhai | - | Agave americana |
| 10 | Aanai kunri | - | Adenantha pavonina |
| 11 | Aanaippuliamaram | - | Adansonia digitata |
| 12 | Rattai – peimarutti | - | Anisomeles malabarica |
| 13 | Rathabolam | - | Aloe barbadensis |
| 14 | Ezhathalari | - | Plumeria rubra |
| 15 | Uka | - | Salvadora persica |
| 16 | Uzhalathi | - | |
| 17 | Usilam | - | |
| 18 | Aerisalai | - | |
| 19 | Aelumichan thulasi | - | Ocimum gratissimum |
| 20 | Aezhilapalai | - | Alstonia scholaris |
| 21 | Odukkann | - | Cleistanthus collinus |
| 22 | Kakkarikkai | - | Cucumis sativus |
| 23 | Kasa-kasa | - | Papaver somniferum |
| 24 | Kadarpaalai | - | Argyrea nervosa |
| 25 | Kadar thengai | - | Lodoicea maldivica |

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| 26 | Kadara naaraththai | - | Citrus medica |
| 27 | Kalumichchamkai | - | |
| 28 | Kavizh thumbai | - | Trichodesma indicum |
| 29 | Kazhu-neer | - | Nymphaea alba |
| 30 | Kalarva | - | Salvadora persica |
| 31 | Chirukalarva | - | Salvadora persica |
| 32 | Karkovai | - | Melothria heterophylla |
| 33 | Kartaamarai | - | Smilax zeylanica |
| 34 | Kaasa | - | Memecylon umbellatum |
| 35 | Kaasi rathnam | - | Quamoclit pennata |
| 36 | Kaattu aelumichchai | - | Atalantia malabarica |
| 37 | Kaattu aellu | - | Sesamum prostratum |
| 38 | Kaattu kadugu | - | Cleome viscosa |
| 39 | Kaattu karuvappattai | - | Cinnamomum iners |
| 40 | Kaattu thumbai | - | |
| 41 | Kaattu paagal | - | Momordica dioica |
| 42 | Kaattu peipudal | - | Trichosanthes lobata |
| 43 | Kaattu mullangi | - | Blumea lacera |
| 44 | Kaattu Vengayam | - | Urginea indica |
| 45 | Kai-vallikkodi | - | Dioscorea alata |
| 46 | Kaaramani | - | Vigna unguiculata |
| 47 | Kaavatambul | - | Cymbopogon martinic |
| 48 | Kiranthinayagam | - | |
| 49 | Kumizhamaram | - | Gmelina arborea |
| 50 | Kurukkaththi | - | Hiptage benghalensis |
| 51 | Kuruvich-chi | - | Ehretia microphylla |
| 52 | Kuthan Kuthambai | - | Cantana indica |
| 53 | Kuntharpanai | - | Caryota urens |
| 54 | Kuvaikkizhangu | - | Maranta arundinacea |
| 55 | Koththavarai | - | Cyamopsis tetragonoloba |
| 56 | Kodaga salai | - | Rungia repens |
| 57 | Gopuram thangi | - | Andrographis echiodes |
| 58 | Chanappu | - | Crotalaria juncea |
| 59 | Sanninayagam | - | |
| 60 | Chavukkumaram | - | Casuarina equisetifolia |
| 61 | Samanthipoo | - | Chrysanthemum coronarium |
| 62 | Chayamaram | - | Caesalpinia sappan |
| 63 | Chavvarisimaram | - | |
| 64 | Chaaraiaruppu | - | Buchanania lanzan |
| 65 | Chinnikizhangu | - | |
| 66 | Chukkankai | - | |
| 67 | Chukkan kirai | - | Rumex vesicarius |
| 68 | Chulukku nayagam | - | |
| 69 | Suriyakanthi | - | Helianthus annus |

| | | | |
|-----|-----------------------|---|---------------------------|
| 70 | Cheppu – nerunjil | - | Indigofera enneaphylla |
| 71 | Chevaganar kizhangu | - | Gloriosa superba |
| 72 | Peyavarai | - | Cassia occidentalis |
| 73 | Thakkolam | - | |
| 74 | Tamaraththam | - | Avarrhoa carambola |
| 75 | Thara | - | Fumaria parviflora |
| 76 | Thalippanai | - | Corypha umbraculifera |
| 77 | Thillai | - | Excoecaria agallocha |
| 78 | Thumbilkkai | - | Diospyros peregrina |
| 79 | Thurinjibeen | - | Alhagi maurorum |
| 80 | Thekku | - | Tectona grandis |
| 81 | Naruvili | - | Cordia dichotoma |
| 82 | Naaganam | - | |
| 83 | Naagathali | - | Opuntia dillenii |
| 84 | Naanal | - | Saccharum spontaneum |
| 85 | Nilakkadambu | - | Asarum europaeum |
| 86 | Nilakumizh | - | Gmelina asiatica |
| 87 | Nilappanai | - | Curculigo orchioides |
| 88 | Nilavaamanakku | - | |
| 89 | Ninral chinungi | - | |
| 90 | Neeralari | - | Polygonum barbatum |
| 91 | Neerbrahmi | - | Bacopa monnieri |
| 92 | Neerpula | - | Phyllanthus reticulatus |
| 93 | Neermel neruppu | - | Ammania baccifera |
| 94 | Nettilingam | - | Polyalthia longifolia |
| 95 | Neithar kizhangu | - | Nymphaea pubescens |
| 96 | Pannimonthan kizhangu | - | Trapa natans |
| 97 | Paruththi | - | Gossypium herbaceum |
| 98 | Motchai | - | Lablab purpureus |
| 99 | Chemparuththi | - | Gossypium arboretum |
| 100 | Parangikkai | - | Cucurbita maxima |
| 101 | Panneerpoo | - | Rosa centifolia |
| 102 | Paakal | - | Momorchica charantia |
| 103 | Paalai | - | Manikara hexandra |
| 104 | Piramiya vazhukkai | - | Bacopa monnieri |
| 105 | Piraa | - | Streblus asper |
| 106 | Pilimbi | - | Averrhoa bilimbi |
| 107 | Pilavai kolli | - | |
| 108 | Pudal | - | Trichosanthes cucumescina |
| 109 | Punnai | - | Calophyllum inophyllum |
| 110 | Ponmusuttai | - | Sida acuta |
| 111 | Manippungu | - | Sapindus lausifolia |
| 112 | Musarkaathilai | - | Ipomea pes-caprae |
| 113 | Maavilangu | - | Crateva magna |

| | | | |
|-----|---------------------|---|------------------------|
| 114 | Munthiri | - | Anacardium occidentale |
| 115 | Mullangi | - | Raphanus sativus |
| 116 | Modagavalli | - | Sterculia foetida |
| 117 | Valli | - | Dioscorea esculenta |
| 118 | Chevalli | - | Dioscorea purpurea |
| 119 | Vaagai | - | Albizia lebbeck |
| 120 | Karuvaagai | - | Albizia odoratissima |
| 121 | Vaadhumai | - | Prunus dulcis |
| 122 | Vizhalarisi | - | Seed of red grass |
| 123 | Peru-lavangappattai | - | Cinnamomum macrocarpum |
| 124 | Peyatti | - | Ficus hispida |
| 125 | Vengai | - | Pterocarpus marsupium |
| 126 | Aruvada | - | Ruta chalepensis |
| 127 | Ezhuttani poondu | - | Launaea pinnatifida |
| 128 | Karimulli | - | Solanum anguini |
| 129 | Kaanaam vaazhai | - | Commelina benghalensis |
| 130 | Seeththa | - | Anona squamosa |
| 131 | Pallipundu | - | striga lutea |
| 132 | Valendrabolam | - | Commiphora myrrh |

Note: Avoid questioning Essay and Short notes with plant's synonyms.

Distribution of Marks for University Practical Examination

| | |
|--------------|------------------|
| Practical | 70 Marks |
| Viva Voce | 20 Marks |
| Record | 10 Marks |
| Total | 100 Marks |

GUNAPAADAM -PAPER II (THATHU AND VILANGINAM)

(MATERIA MEDICA –METALS, MINERALS AND ANIMAL KINGDOM)

Total Hours : 200

INTRODUCTION (25 hours)

- Introduction to General Pharmacology (Gunapadam)
- Classification of metals & minerals
- Instruments used for medicine preparation, description about specific techniques, including the special technique of drug preparation.
- Acid distillation formulae.
- Converting ancient measurements into new metric units.
- Internal applications – 32, Definition, examples & their life span
- How to form a medicine production unit
- Classification of combustion (Spudam)
- Study of friendly drugs (Synergetic) and antagonistic drugs.
- Classification of drugs based on five elements

Ulogangal – Metals (20 hours)

| Sl. No | Tamil Name | English Name / Scientific Name |
|---------------|-------------------|---------------------------------------|
| 1 | Ayam | Iron |
| 2 | Ekkhu | Steel |
| 3 | Kareeyam | Lead |
| 4 | Kandham | Magnetic Oxide of Iron |
| 5 | Thambram | Copper |
| 6 | Naagam | Zinc |
| 7 | Thankam | Gold |
| 8 | Mandooram | Ferrous Ferric Oxide |
| 9 | Velleeyam | Tin |
| 10 | Velli | Silver |

II. Pancha Sootham - Mercury & its ores (15 hours)

| Sl. No | Tamil Name | English Name / Scientific Name |
|---------------|-------------------|---|
| 1 | Rasam | Mercury |
| 2 | Rasa chendhooram | Red Sulphide of mercury |
| 3 | Lingam | Cinnabar – Natural |
| 4 | Pooram | Calomel - Hydragryum subchloride |
| 5 | Veeram | Corrosive sublimate - Hydrogyrum per chloride |

III. Paashanagal - Metal Salts (25 hours)

| Sl. No | Tamil Name | English Name / Scientific Name |
|---------------|-------------------|--|
| 1 | Anjanakal | Antimony Sulphide |
| 2 | Kanthakam | Sulphur |
| 3 | Gowri paashanam | Yellow Oxide of arsenic (Synthetic) |
| 4 | Thaalagam | Yellow Arsenic Trisulphide |
| 5 | Thottipaashanam | A pharmaceutical preparation of Arsenic combined with mercury & sulphur. |

| Sl. No | Tamil Name | English Name / Scientific Name |
|--------|---------------------|----------------------------------|
| 6 | Nava pashaanangal | Nine kinds of metal salts |
| 7 | Pancha paashanangal | Five kinds of metal salts |
| 8 | Manosilai | Red Arsenic Disulphide (Realger) |
| 9 | Mirudhaar sinki | Galena (Lead Sulphide) |
| 10 | Vellaipaashanam | Arsenum Acidum (White Arsenic) |

IV. Karasaram – Salts

(30 hours)

| Sl. No | Tamil Name | English Name / Scientific Name |
|--------|------------------|--|
| 1 | Applakkaaram | Sodium Carbonate impure |
| 2 | Indhuppu | Sodium Chloride Impure (RockSalt) |
| 3 | Evatchaaram | Potassium Carbonate impure |
| 4 | Ekambachaaram | A Prepared Salt (an efflorescentsalt) |
| 5 | Kadal nurai | Sea froth engendered by submarine fire |
| 6 | Kanavaai odu | OS SEPIAE (Cuttle fish bone) |
| 7 | Gandhiuppu | Salts of Sulphur |
| 8 | Gandhaga lavanam | Salt obtained from Sulphur, mixed with other ingredients (Consolidated sea salt) |
| 9 | Kalluppu | Salt found in lumps deposited on beds of rocks at the bottom of the sea |
| 10 | Kariuppu | Sodium chloride (Common salt) |
| 11 | Kaaichulavanam | Salt produced from the earth impregnated with soda |
| 12 | Cheenaakkaaram | Alum (Aluminous Sulphate) |
| 13 | Soodan | Camphor |
| 14 | Thilalavanam | A salt derived from sessamum |
| 15 | Navauppu mezhugu | Waxy preparation comprises with salts |
| 16 | Navachchaaram | Ammonium chloridum (Sal ammoniac) |
| 17 | Pachai karpooram | Borneo camphor (Crude camphor) |
| 18 | Panchalavanam | Mixture of five salts |
| 19 | Pidaalavanam | Black salt |
| 20 | Pooneeru | Fuller's earth |
| 21 | Amber | Ambra arasea |
| 22 | Valaiyaluppu | Extracted salt from fuller's earth (Glass gall) |
| 23 | Vengaaram | Sodium biborate (Borax) |
| 24 | Vediuppu | Potassium nitrate (Salt petre) |
| 25 | Attuppu | A boiled salt obtained from salt petre |

V. Navamanigal – Gems

(15 hours)

| Sl. No | Tamil Name | English Name / Scientific Name |
|--------|--------------|--------------------------------|
| 1 | Komedhagam | Onyx (Berly) |
| 2 | Neelamani | Sapphire |
| 3 | Pavazham | Coral |
| 4 | Pushparaagam | Topaz, Yellow Topaz |
| 5 | Maragadham | Emerald |
| 6 | Maanickam | Ruby (Carbuncle) |

| Sl. No | Tamil Name | English Name / Scientific Name |
|--------|-------------|--------------------------------|
| 7 | Vaidooriyam | Cats eye (Chryso prase) |
| 8 | Vairam | Diamond |
| 9 | Muthu | Pearl |

Pavazham & Muthu to be studied in detail, rest of other gems may be studied briefly.

VI. Uparasam - Minerals (Natural Substances) (20 hours)

| Sl. No | Tamil Name | English Name / Scientific Name |
|--------|---------------------|-----------------------------------|
| 1 | Appiragam | Mica |
| 2 | Annabedhi | Ferri Sulphas (Green vitriol) |
| 3 | Karpoorasilaasathu | Crystallised foliated Gypsum |
| 4 | Kalnaar | Asbestos |
| 5 | Kal-matham | |
| 6 | Karchunnam | Lime stone |
| 7 | Kaadikkaaram | Nitrate of silver |
| 8 | Kaavikkal | Red ochre |
| 9 | Gomuthra silaasathu | Asphaltum (Asphalt mineral piteh) |
| 10 | Thurusu | Cupric sulphate (Blue vitriol) |
| 11 | Nandukkal | Fossil stone crab |
| 12 | Nimilai | Bismuth |
| 13 | Paalthutham | Sulphate of zinc |
| 14 | Saathirabedhi | |

JEEVAM -MATERIA MEDICA (ANIMAL KINGDOM) (50 hours)

| Sl. No | Tamil Name | English Name / Scientific Name |
|--------|--------------------|--|
| 1) | Attai | Hirudo Medicinalis (Speckled leech) |
| 2) | Aamai | Chelonia Turtle (Tortoise) |
| 3) | Aalkaattipatchi | Lapwing bird (Vanellus indicus) |
| 4) | Indrakopa poochi | Mutilla Occidentalis |
| 5) | Iragukal | Feathers |
| 6) | Udumbu | Varanus Sps (Monitor) |
| 7) | Eri vandu | Mylabris Sps. |
| 8) | Elumbugal | Bones |
| 9) | Onan | Calotis (Common Agemaid Lizard) |
| 10) | Kasthuri | Moschus moschiferus musk |
| 11) | Kaandamiruga kombu | Rhinoceros unicornis |
| 12) | Kilinjil | Ostrea edults linn (Common oyster shell) |
| 13) | Kulambugal | Hoofs |
| 14) | Kulavikkoondu | Wasps nest |
| 15) | Kombarakku | Carteria Lacca (Lac) |
| 16) | Kombugal | Horns |
| 17) | Korochanam | Fel Borinum purifactum (Oxbile) |
| 18) | Kozhi | Gallus domes (Domestic cock & hen) |
| 19) | Sangu | Turbinella rapa (Conch Shell) |
| 20) | Chaanam | Dung |
| 21) | Siruneer | Urine |

| Sl. No | Tamil Name | English Name / Scientific Name |
|---------------|-----------------------|---|
| 22) | Suraa | Squalus carcharius (Shark) |
| 23) | Thantham | Teeth |
| 24) | Thaen | Honey |
| 25) | Nandu | Crab |
| 26) | Nathai | Fresh Water Snail |
| 27) | Nari echam | Jackal's excreta |
| 28) | Palagarai | Cypraea moneta Linn (Cowry) |
| 29) | Pantri | Sus indicushog (Pig) |
| 30) | Paambu chattai | Snake's slough |
| 31) | Palum pal porutkalum | Milk and milk products |
| 32) | Pitchi | Bile |
| 33) | Puli | Tiger |
| 34) | Punugu | Viverra Civetta (Civet cat) |
| 35) | Poo naagam | Earth Worm |
| 36) | Mayil | Pavo Cristatus Linn (Pea Cock) |
| 37) | Maan | Deer |
| 38) | Min mini poochi | Fire fly |
| 39) | Muttai odugal | Egg shells |
| 40) | Musiru muttai | Egg of Formica Smaragdina |
| 41) | Mudhalai | Crocodills porosus (Crocodile) |
| 42) | Muthuchippi | Mytilus margaritiferus (Pearl Oyster Shell) |
| 43) | Mezhugu | Wax |
| 44) | Yaana | Elephas indicas (Elephant) |
| 45) | Mul eli | |
| 46) | Pazham thinni Vavvaal | (Bat). |
| 47) | Thavalai (Patchai). | Green coloured Frog. |
| 48) | Kaattu-Poonai. | |

Thathu Jeevam – Practical **Total Hours : 100**

| | |
|-----------------------------------|-------------------|
| 1. Sutthi (Purification of Drugs) | (10 hours) |
| 2. Chooranam | (7 hours) |
| 3. Vadagam | (7 hours) |
| 4. Maathirai | (7 hours) |
| 5. Thailam | (7 hours) |
| 6. Kuzhambu | (7 hours) |
| 7. Ilagam | (7 hours) |
| 8. Parpam | (7 hours) |
| 9. Chendhooram | (7 hours) |
| 10. Mezhugu | (7 hours) |
| 11. Vennai | (7 hours) |
| 12. Rasaayanam | (7 hours) |
| 13. Kalimbu | (7 hours) |

Preparation of Peru Marunthugal can be shown in Video to students during Practical hours **(6 hours)**

Reference books:

- 1) Text of Gunapadam – Thathu Jeeva Vaguppu – Vol. II & III – by Dr.R.Thiagarajan
- 2) Pathartha Guna Chindamani
- 3) Pathartha Guna Vilakkam – Kannusamy
- 4) Materia Medica - Vol. I & II – by Dr. Natkarni
- 5) Siddha Vaidhya Thirattu – by Dr. C.S. Uthamarayan

Distribution of Marks (Mark Weightage) for University Theory**Examination**

| | |
|--|------------------|
| Introduction & Navamanigal – Gems | 5 Marks |
| Ulogangal – Metals | 20 Marks |
| PanchaSootham - Mercury & its ores | 15 Marks |
| Paashanangal - Metal Salts | 10 Marks |
| Karasaram – Salts | 10 Marks |
| Uparasam - Minerals (Natural Substances) | 10 Marks |
| Jeevam -Materia Medica (Animal Kingdom) | 30 Marks |
| Total | 100 Marks |

Distribution of Marks for University Practical Examination

| | |
|--------------|------------------|
| Practical | 70 Marks |
| Viva Voce | 20 Marks |
| Record | 10 Marks |
| Total | 100 Marks |

**Syllabus for Siddha Maruthuva Arignar (BSMS) Course
(2013 SCHEME)**

Second Professional BSMS

UDAL KOORUGAL (ANATOMY) PAPER I

Total Hours : 100

I. OSTEOLOGY WITH APPLIED ANATOMY (30 hours)

1. General structure of bone and Ossification
2. Types of bones
3. Skull – Norma frontalis, Norma verticalis, Norma basalis, Norma lateralis, Norma occipitalis, Cranial fossa
4. Paranasal sinuses
5. Mandible
6. Hyoid bone
7. Vertebral column – Cervical, Thoracic, Lumbar, Sacrum and Coccyx - (Typical and atypical)
8. Ribs, Costal cartilages and Sternum
9. Bones of Upper limb – Clavicle, Scapula, Humerus, Radius, Ulna
10. Name and numbers of Carpal, Metacarpal and Phalanges
11. Bones of Lower limb – Hip bone, Comparison between male and female pelvis, Femur, Patella, Fibula, Tibia
12. Name and numbers of Tarsal, Metatarsal and Phalanges
13. Arches of foot

II. ARTHROLOGY WITH APPLIED ANATOMY (10 hours)

1. Classification of joints
2. Temporomandibular joint
3. Intervertebral joints
4. Shoulder joint
5. Elbow joint
6. Wrist joint
7. Hip joint
8. Knee joint
9. Ankle joint

III. MYOLOGY WITH APPLIED ANATOMY (20 hours)

1. Scalp
2. Muscles of facial expression
3. Muscles of mastication
4. Muscles of eye ball
5. Suprahyoid muscles
6. Infrahyoid muscles
7. Name of the Pre and Para vertebral muscles
8. Lattismus dorsi, Erector spinae, Trapezius, Rhomboideus major and minor, Name of other muscles of back
9. Pectoral region muscles

10. Scapular region muscles
11. Muscles of Arm
12. Muscles of Forearm
13. Name of muscles of hand
14. Intercostal muscles and diaphragm
15. Anterior and Posterior Abdominal wall muscles
16. Names of Pelvic floor and Perineal muscles
17. Gluteal muscles
18. Muscles of thigh
19. Muscles of leg
20. Name of the muscles involved in the formation of sole of foot

FOSSAE AND TRIANGLES*

(5 hours)

1. Triangles of neck
2. Axilla
3. Cubital fossa
4. Ischiorectal fossa
5. Inguinal Canal
6. Adductor Canal
7. Femoral triangle
8. Popliteal fossa

IV. ANGIOLOGY

(Origin, termination, course and branches/tributaries have to be studied)

ARTERIAL SYSTEM

(20 hours)

1. Aorta – Ascending aorta – Coronary arteries – Arch of aorta – Brachiocephalic trunk – Left and Right Common Carotid – Left and Right Subclavian arteries
2. External and Internal carotid arteries, Vertebral and Basilar arteries – Formation of Circle of Willis
3. Major Arteries in Upper limb – Axillary – Brachial – Radial – Ulnar arteries – Superficial and deep palmar arches
4. Thoracic aorta – Abdominal aorta
5. Common iliac – External and Internal iliac artery
6. Major arteries in Lower limb – Femoral – Popliteal – Anterior and Posterior Tibial Arteries – Dorsalis Pedis artery – Plantar arch

VENOUS SYSTEM

(10 hours)

1. Dural Venous Sinuses
2. External and Internal Jugular Vein
3. Veins of Upper limb – Dorsal Venous arch - Cephalic – Basilic – Median Cubital Vein
4. Coronary sinus
5. Veins of thorax – Brachiocephalic – Azygos – Hemi azygos – Accessory azygos

6. Superior and Inferior vena cava
7. Portal vein and Portacaval anastamosis
8. Veins of lower limb –Dorsal Venous arch – Great and small Saphenous – Anterior and Posterior Tibial Vein

V. LYMPHATICS

(5 hours)

1. Cisterna Chyli – Thoracic duct – Right lymphatic duct (2 hrs.)
2. Axillary, Cervical, Inguinal lymph nodes and its drainage (3 hrs.)

PRACTICALS FOR UDAL KOORUGAL – I

Total Hours : 75

1. Whole body dissection.

(25 hours)

2. Specimen demonstration.

(50 hours)

REFERENCE BOOKS

1. Gray's Anatomy – 40th Edition
2. Text book of Anatomy – T.S. Ranganathan - 5th revised edition edition
3. Human Anatomy – B.D. Chaurasia - 4th Edition –
4. Text book of Anatomy – Inderbir Sing – Edition 5/e
5. Fundamentals of Human Anatomy – A.S. Moni
6. Atlas of Anatomy – Inderbir Sing

UDAL KOORUGAL (ANATOMY) PAPER II Total Hours : 100

I. NERVOUS SYSTEM (40 hours)

1. Meninges of brain and spinal cord
2. Cerebrum – Lobes, Surfaces, Poles, Fissures, Sulci and Gyri, Areas, Types of fibres, Corpus callosum and Internal capsule
3. Basal nuclei
4. Names of nuclei of Diencephalon
5. Thalamus, Hypothalamus – Parts, Nuclei and Connections
6. Location and boundaries of Ventricles
7. Formation and circulation of CSF
8. External and internal features of Brain stem
9. External and internal features of Cerebellum
10. External and internal features of Spinal cord including tracts
11. Cranial nerves
12. Formation of typical spinal nerves and intercostal nerves
13. Formation of Cervical, Brachial, Lumbar and Sacral plexus including branches
14. Name and location of Sympathetic and Parasympathetic ganglion

II. SPECIAL SENSES (10 hours)

1. Eye
2. Ear
3. Nose
4. Tongue
5. Skin

III. RESPIRATORY SYSTEM (5 hours)

1. Larynx
2. Trachea
3. Mediastinum
4. Pleura, Lungs and Bronchopulmonary segments

IV. CARDIOVASCULAR SYSTEM (2 hours)

1. Heart
2. Pericardium

V. DIGESTIVE SYSTEM (20 hours)

1. Oral cavity, Palate, Salivary glands
2. Structure and types of teeth
3. Pharynx
4. Oesophagus
5. Stomach
6. Small intestine
7. Large intestine
8. Peritoneum and its folds
9. Liver
10. Extra biliary apparatus
11. Pancreas

LYMPHOID ORGANS***(3 hours)**

1. Spleen
2. Thymus glands
3. Tonsils

VI. UROGENITAL SYSTEM**(15 hours)**

1. Kidney
2. Ureter
3. Urinary bladder
4. Male and female urethra
5. Male reproductive organs - Scrotum, Testies, Epididymis, Seminal vesicles, Vasdeferens, Spermatic cord, Prostate gland, Penis
6. Female reproductive organs – Uterus, Uterine tubes, Ovaries, External genitalia, Mammary glands

VII. ENDOCRINOLOGY**(5 hours)**

1. Pituitary gland
2. Pineal gland
3. Thyroid and Parathyroid
4. Adrenal gland

PRACTICALS FOR UDAL KOORUGAL – II**Total Hours : 75**

1. Whole body dissection **(25 hours)**
2. Specimen demonstration **(50 hours)**

REFERENCE BOOKS

1. Gray's Anatomy – 40th Edition
2. Text book of Anatomy – T.S. Ranganathan - 5th revised edition edition
3. Human Anatomy – B.D. Chaurasia - 4th Edition –
4. Text book of Anatomy – Inderbir Sing – Edition 5/e
5. Fundamentals of Human Anatomy – A.S. Moni
6. Atlas of Anatomy – Inderbir Sing

UDAL THATHUVAM (PHYSIOLOGY) PAPER I

Total Hours : 50

1. Ninety six fundamental principles (Thathuvas) and its details. Five elements (lymbootham) – five sense organs (pori) – five senses (pulan) – Motor organs (Kanmendriyam) – Discriminative power of five senses (Gnanandriyam) – Four intellectual faculties (Karanam) – Wisdom of Self realization (Arivu) – Ten Vital channels (Dhasa nadi) – Ten vital Air (Dhasavayu) – five visceral cavities (Asayam) – five sheaths (Kosam) – Six vital centres of the Soul (Aatharas) - Three regions (Mandalam) – Three impurities of soul (malam), Three humours (Thodam) - Three physical bindings (Edanai) – Three cosmic qualities (gunam) - Two acts (Vinai) – Eight passions (Ragam) – Five states of consciousness (Avathai). **(5 hours)**
2. Five elements and its medical aspects. Creation of five elements – properties – five fold combination (panchikaranam) – Manifestation of five elements in our body (panchabootha koorugal (or) Purakaruvikal) – Relation between five elements & six tastes – Five elements and three humours – five elements and seven physical constituents. **(5 hours)**
3. Development of Embryo according to Siddhars' concepts. Role of five elements during fertilization, and intrauterine life – Different stages of foetal growth – sex determination & Determination of life span according to Siddhar's concept. **(5 hours)**
4. Three humoral theory Vatham:- Predominant locations – properties – physiological role. Functional varieties of vatham – Pranana – Udhanana – Samana – Abana – Vyana – Naga – Koorma – Kirukara – Devadhana – Dhananjeyana. Pitham:- Predominant locations – properties – physiological role. Functional varieties of pitham - Pasakam – Ranjakam – Sathakam – Aalokakam – prasakam. Kapham:- Predominant location – properties – physiological role Functional varieties of Kapham. – Avalampakam – Kilethakam – Pothakam – Tharpakam – Santhikam. Temperament of an individual Features of vatha temperament – pitha temperament – Kapha temperament. **(5 hours)**
5. Seven physical constituents: Nutrient juice (saram) – Blood (Chenneer) – Muscle (ooun) – fat & adipose tissue (kozuppu) – Bone & Teeth (Enbu) – Bone marrow & nervous tissue (Moolai) – Semen or ovum (Sukilam/suronitham) – their nature and functions. **(4 hours)**
6. Five sheaths (Kosangal) Physical sheath (Annamaya kosam) – Respiratory sheath (Piranamaya kosam) – Mental sheath (Manomaya kosam) – Intellectual sheath (vignanamaya kosam) – Blissful sheath (Ananthamaya kosam) **(3 hours)**
7. Physical sheath:- Composition of food materials – waste or excretory materials (Chakkai) – Nutrients – Tastes – Three vital units (Uyir thathu) – qualities (gunam) Taste:- Properties of six tastes – Synergetic taste (natpu suvai) Antagonistic taste (pakai suvai) Vatha food – pitha food – Kapha food – Sathuva food – Rajasa food - Thamasa food – food and seasons. **(5 hours)**
8. Respiratory sheath:- Functions of pranana – Regulation of breathing – Pranayama thathuvam. **(5 hours)**

9. Mental sheath Siddhars concept of Nadi – Definitions – Characteristics of Nadi (Nadi Nadai) – Nadi ratio – Ten important sites of Nadi – Guru Nadi – Bootha Nadi – Vatha, pitha, Kapha nadi & conjoined nadi (Thondha Nadi) **(2 hours)**
10. Fourteen Natural Urges (Vehangal) Vatham (flatus air) – Thummal (sneezing) – Neer (micturition) – Malam (Defecation) – Kottavi (Yawning) – Pasi (appetite) – Neervetkai (Thirst) – Kasam (cough) – Illaippu (exhaustion) – Nithirai (sleep) – Vanthi (Vomiting) – Kanner (Tears) – Sukilam (semen) – Suvasam (Breathing). **(2 hours)**
11. Longevity of life – According to Siddha principles – Concentration of six Psychophysical centres (Aatharas) – Stimulation of Adharas by meditation & Yoga. **(2 hours)**
12. Intellectual sheath:- (Vingnana maya kosam) Four intellectual faculties (Anthakaranam) – Good & Bad Acts (Iruvinai) – Mukkunam (Satwa, Rajas & Thamas) – Aatharam (six station of soul) – Avathai (Six stages of consciousness) – Dhasa Nadi (Idakalai, Pinkalai, Suzhumunai, Sikuvai, Purudan, Kanthari, Atthi, Alampudai, Sankini & Gugu) **(2 hours)**
13. Blissful sheath (Anantha maya kosam) Self realization (Arivu) – achievement (Siddham) and its details **(2 hours)**
14. Envagai Thervu: Naa- Niram – Mozhi – Vizhi – Malam – Moothiram- Naadi – Sparisam- Physiological Aspect. **(3 hours)**

PRACTICAL

Total Hours : 50

Part-A

Major: **(30 hours)**

1. Examination of Naadi
2. Examination of Udal kattugal
3. Examination of Envagai Thervu
4. Examination of Udal iyal

Part-B

Minor: **(15 hours)**

1. Suvaigal
2. Panchabootha pancheekaram

Part- C:

Spotters: **(5 hours)**

1. Suvaigal
2. Unavu Poruttkal

UDAL THATHUVAM (PHYSIOLOGY) PAPER II

Total Hours : 100

I. General Physiology (4 hours)

1. Cell - organelles - Transport across cell membrane - Trans membrane electrical potential.
2. Homeostasis - Positive and negative feedback - Acid base balance.

II. Blood and Body fluids (20 hours)

1. Body fluids - ECF & ICF, plasma proteins - classification and functions.
2. Erythrocytes - Erythropoiesis - functions - destruction. Haemoglobin and 'Fe' metabolism, Anaemia, ESR, PCV, Blood indices.
3. Leucocytes - Classification, functions, formation, fate, plasma cells, Immunity
4. Thrombocytes - Hemostasis, Coagulation of Blood.
5. Blood groups, Blood transfusion - compatability.
6. Reticulo endothelial system, spleen, lymphatic system & lymph, tissue fluid & odema.
7. Applied physiology

III. Muscle Physiology (5 hours)

1. Functional anatomy of muscle, Classification, structure, Excitation, contraction and relaxation of smooth, skeletal and cardiac Muscles, Neuro muscular junction.
2. Applied physiology

IV. Renal physiology and Excretion. (10 hours)

1. Functional anatomy of kidney, Nephron, Renal circulation, juxta glomerular apparatus.
2. Urine formation, Glomerular filtration, Reabsorption of filtrate, Renal threshold, Urine concentrating mechanism, Role of kidney in Acid base balance. Filling of bladder and micturation, Action of parathormone & vasopressin. Renal Function Tests.
3. Skin - structure, functions, glands, Regulation on body temperature.
4. Applied physiology

V. Endocrinology (10 hours)

1. Introduction to endocrine physiology, control of secretion, feed back regulation.
2. Hormones secreted, Biosynthesis, functions and regulation of secretion of the following endocrine glands – Hypothalamus, pituitary, Thyroid, Parathyroid, Pancreas, Adrenal cortex and medulla, Local Hormones.
3. Applied physiology

VI. Reproductive systems (6 hours)

1. Sexual differentiation of foetus in uterus, Male sex organs, spermatogenesis, semen, Male sexual act, Male sex hormones, actions & control.
2. Female sex organs, Oogenesis, Menstrual cycle, role female sex hormones, Menopause.
3. Fertilization, Fetoplacental unit, Pregnancy, parturition, Mammary glands & lactation.

4. Applied physiology

VII. Digestive system (10 hours)

1. Functional anatomy of alimentary tract.
2. Mastication, salivary glands, composition & function of saliva, control of salivation, deglutition.
3. Secretion, composition, functions, control of secretion of Stomach, pancreas, Liver, small intestine.
4. Gall bladder, enterohepatic circulation, Motility of GIT, Digestion & absorption of carbohydrates, proteins, Lipids, Defecation.
5. Applied physiology

VIII. Cardio vascular system (10 hours)

1. Introduction – properties of cardiac muscle, conducting tissue of the heart, pacemaker, ionic basis of Action potential.
2. Cardiac cycle – phases & events, heart sounds, Murmur, ECG, Cardiac output and venous return, cardiac function curves, Regulation of cardiac function, Hemodynamics.
3. Arterial Blood pressure & its Regulation, Arterial pulse and venous pulse.
4. Foetal circulation and respiration, shock, cardio vascular adjustments during Exercise.
5. Applied physiology

IX. Respiratory and Environmental Physiology (10 hours)

1. Functional Anatomy of Respiratory tract, Mechanism of Respiration, Ventilation, Surfactant, Compliance, Spirometric volumes and capacities.
2. Exchange of Respiratory gases, Transport of O₂ and Co₂ in blood and tissue fluid.
3. Physiological effects of ascent to high altitudes, Acclimatization, Deep sea physiology. Effects of Exercise on Respiration.
4. Applied physiology

X. Nervous system (10 hours)

1. Functional anatomy of brain and spinal cord, Synapse, Neuroglial cells, degeneration and regeneration of Nerve fibers, Sensory receptors – classification, Threshold stimulus, Grouping of sensory fibres.
2. Reflex activity – Spinal reflexes, reciprocal inhibition, Muscle tone, Motor units.
3. Pathway and Function of Spinal Cord, Ascending & Descending tracts of spinal cord, upper motor neurons, control of muscle tone and voluntary movements, Physiology of Pain.
4. Nuclei, parts, connections and functions of Thalamus, Hypothalamus, basal ganglia, brain stem, limbic system, proprioceptor & vestibular apparatus.
5. Cerebral cortex – layers, connections, Functions of Cerebellum – morphology – nuclei, connections, functions.
6. Higher intellectual functions.
7. Reticular formation – physiology of sleep and arousal, EEG.
8. CSF – formation, circulation and functions.

9. ANS
10. Applied Physiology

XI. Special senses. (5 hours)

1. Functional anatomy of sense organ,
2. Eye – visual process – field of vision – visual path way – pupillary reflex- colour vision – Errors of Refraction.
3. Ear – Auditory Pathway. Mechanism of Hearing – Auditory Defects
4. Sensation of taste
5. Sensation of smell.
6. Applied physiology

PRACTICAL

Total Hours : 50

Part-A

Major: (25 hours)

1. Estimation of Haemoglobin
2. Determination of ESR
3. Determination of PCV & Absolute values
4. Total WBC Count
5. Total RBC Count
6. Differential count of WBC

Part-B

Minor: (22 hours)

1. Determination of bleeding time
2. Determination of clotting time
3. Blood grouping and Rh typing
4. Measurement of Body Temperature
5. Measurement of Blood Pressure
6. Examination of Deep Tendon Reflex (Specify)
7. Examination of Superficial Reflex(Specify)
8. Examination of Cranial Nerves(Specify)
9. Examination of Cardio vascular System(Specify)
10. Examination of Respiratory System(Specify)
11. Examination of Digestive System(Specify)

Part- C:

Spotters: (3 hours)

1. Parts of microscope
2. Apparatus
3. Identification of different type of WBC
4. ECG pattern

Reference Books :-

1. Samson and Wright applied Physiology
2. Hewer's Histology
3. Schafer's Histology
4. Guyton Physiology
5. Ganong Physiology
6. Essentials of Medical Physiology - Dr. K.S.Sembulingam
7. Text book of Physiology- Dr.Saratha Subramaniyam

GUNAPADAM-PAPER I (MOOLIGAI) (MATERIAMEDICA - PLANT KINGDOM)

Total Hours : 200

1) **Introduction** : (3 hours)

- i. Properties of drug
- ii. Taste, character, potency, post absorptive tastes (Vibagam)
- iii. Specific action (prabhagam)

2) Study about therapeutic actions with few examples. (3 hours)

3) Detailed study about the following herbs including their Synonyms, Botanical names, various names in regional languages, origin, identification, availability, parts used, description about their properties, therapeutic actions, indications, doses, home remedies and specific formulae related to particular herbs. (174 hours)

| Sl. No. | <u>Tamil Name</u> | <u>Botanical Name</u> |
|----------------|--------------------------|------------------------------|
| 1 | Agatti | - Sesbania grandiflora |
| 2 | Agil | - Aquilaria agallacha roxb |
| 3 | Akkarakaaram | - Anacylus pyrethrum DC |
| 4 | Asogu | - Saraca asoca |
| 5 | Athimathuram | - Glycyrrhiza glabra |
| 6 | Athividayam | - Aconitum heterophyllum |
| 7 | Atti | - Ficus recemosa |
| 8 | Aakasathamarai | - Pistia stratiotes |
| 9 | Anthimalli | - Mirabilis jalapa |
| 10 | Abini -Kasa Kasa | - Papaver somniferum |
| 11 | Amukkurakkizhangu | - Withania somnifera |
| 12 | Ammaan pachcharisi | - Euphorbia pilurifera |
| 13 | Ammaiyar koondhal | - Curcuta reflexa |
| 14 | Arasu | - Ficus religiosa |
| 15 | Arathai | - Alpinia galanga |
| 16 | Ari-val mookku patchilai | - Sida acuta |
| 17 | Arunelli | - Phyllanthus acidus |
| 18 | Alari | - Nerium odorum |
| 19 | Alli | - Nymphaea nouchali |
| 20 | Avarai | - Lablab purpureus |
| 21 | Avuri | - Indigofera tinctoria |
| 22 | Azhavanam | - Lawsonia inermis |
| 23 | Azhinjil | - Alangium salvifolium |
| 24 | Arugu | - Cynodon dactylon |
| 25 | Annasipoo | - Illicium verum |
| 26 | Aakaasagarudan | - Corallocarpus epigaeus |
| 27 | Aadathodai | - Justicia adatoda |
| 28 | Aadutheendapalai | - Aristolochia bracteolata |
| 29 | Aadaiyotti | - Pupalia orbiculata |
| 30 | Aathandam | - Capparis zeylanica |
| 31 | Aamanakku | - Ricinus communis |
| 32 | Chitraamanakku | - |

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|----|------------------|---|-------------------------------|
| 33 | Peraamanakku | - | <i>Ricinus inermis</i> |
| 34 | Chevvaamanakku | - | <i>Ricinus tanarius</i> |
| 35 | Aayil | - | <i>Chukrasia tabularis</i> |
| 36 | Aalamaram | - | <i>Ficus benghalensis</i> |
| 37 | Aavarai | - | <i>Cassia auriculata</i> |
| 38 | Aalivirai | - | <i>Lepidium sativum</i> |
| 39 | Aattruthumatti | - | <i>Citrullus colocynthis</i> |
| 40 | Iruvi | - | <i>Dryopteris felixmas</i> |
| 41 | Isangu | - | <i>Clerodendrum inerme</i> |
| 42 | Isappukol vidhai | - | <i>Plantago ovata</i> |
| 43 | Inji | - | <i>Zingiber officinale</i> |
| 44 | Indu | - | <i>Mimosa rubicaulis</i> |
| 45 | Iththi | - | <i>Ficus microcarpa</i> |
| 46 | Impooral | - | <i>Oldenlandia umbellata</i> |
| 47 | Ireval chinni | - | <i>Rheum emodi</i> |
| 48 | Ilanda maram | - | <i>Ziziphus mauritiana</i> |
| 49 | Lavangam | - | <i>Syzygium aromaticum</i> |
| 50 | Lavangappattai | - | <i>Cinnamomum verum</i> |
| 51 | Ilavamaram | - | <i>Bombax ceiba</i> |
| 52 | Mul ilavu | - | <i>Bombax malabaricum</i> |
| 53 | Iluppai | - | <i>Madhuca longifolia</i> |
| 54 | Ilaikkalli | - | <i>Euphorbia ligularia</i> |
| 55 | Eechu (Sitrechu) | - | <i>Phoenix sylvestris</i> |
| 56 | Paereechu | - | <i>Phonex dactilifera</i> |
| 57 | Echchura mooli | - | <i>Aristolochia indica</i> |
| 58 | Usilamaram | - | <i>Albizia odoratissima</i> |
| 59 | Uttamani | - | <i>Pergularia daemia</i> |
| 60 | Uppilangodi | - | <i>Mimosa paniculata</i> |
| 61 | Rudra jada | - | <i>Ocimum basilicum</i> |
| 62 | Rudraksham | - | <i>Elacocarpus sphacsicus</i> |
| 63 | Urulai kizhangu | - | <i>Solanum tuberosum</i> |
| 64 | Uzhundu | - | <i>Vigna mungo</i> |
| 65 | OOmaththai | - | <i>Datura metal</i> |
| 66 | Karu oomaththai | - | |
| 67 | Aetti | - | <i>Strychnos nux-vomica</i> |
| 68 | Aerukku | - | <i>Calotropis gigantea</i> |
| 69 | Aelikkadilai | - | <i>Merremia emarginata</i> |
| 70 | Aeliyamanakku | - | <i>Jatropha curcas</i> |
| 71 | Aelumichai | - | <i>Citrus lemon</i> |
| 72 | Aellu | - | <i>Sesamsum indicum</i> |
| 73 | Aelam | - | <i>Elettaria cardamomum</i> |
| 74 | Chitraelam | - | <i>Elettaria regains</i> |
| 75 | Kattu – aelakkai | - | <i>Amomum subulatum</i> |
| 76 | Malayelam | - | |

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|-----|--------------------|---|-------------------------------|
| 77 | Iyvirali | - | Diplocyclos palmatus |
| 78 | Odimaram | - | Lanea coromandelica |
| 79 | Omam | - | Carum copticum |
| 80 | Kurosani omam | - | Hyoscyamus niger |
| 81 | Oritazhtamarai | - | Ionidium suffrufiocosum |
| 82 | Orilai tamarai | - | Nervilia aragoana |
| 83 | Kanja | - | Cannabis sativa |
| 84 | Kadambu | - | Anthocephalus cadamba |
| 85 | Kadalazhinjil | - | Salacia reticulata |
| 86 | Kadalai | - | Cicer arietinum |
| 87 | Kadarpasi | - | Gracilaria lichenoides |
| 88 | Chengadugu | - | Brassica juncea |
| 89 | Vengadugu | - | Brassica alba |
| 90 | Kadugu rokani | - | Picrorhiza scrophulariflora |
| 91 | Kadukkai | - | Terminalia chebula |
| 92 | Kattukodi | - | Cocculus hirsutus |
| 93 | Kanap-pundu | - | Exacum pedunculatum |
| 94 | Kandangkattari | - | Solanum surattense |
| 95 | Kandupaarangi | - | Clerodendron serratum |
| 96 | Kathakambu | - | Uncaria gambir |
| 97 | Kasthuri manjal | - | Curcuma aromatica |
| 98 | Kamuku -Kalippakku | - | Areca catechu |
| 99 | Kambu | - | Pennisetum typoideum |
| 100 | Kottaikaranthai | - | Spaeranthus indicus |
| 101 | Kaththari | - | Solanum melongena |
| 102 | Karisalankanni | - | Eclipta prostrata |
| 103 | Karungali | - | Acacia catechu |
| 104 | Karunai thandu | - | Amarphophallus paeonic folius |
| 105 | Karpooravalli | - | Aniso chilus carnosus |
| 106 | Karumbu | - | Saccharum officinarum |
| 107 | Karkadaga singhi | - | Rhus succedanea |
| 108 | Kalappai kizhangu | - | Glorius superba |
| 109 | Kaliyana pushnikai | - | Benincasa hispida |
| 110 | Kaliyana murukku | - | Erythrina variegata |
| 111 | Kazharchi kodi | - | Caesalpinia bonduc |
| 112 | Kala | - | Carissa carandar |
| 113 | Kalli | - | Euphorbia ligularia |
| 114 | Kodikalli | - | Sarcosemma brevistigma |
| 115 | Sadhurakalli | - | Euphorpia antiquorum |
| 116 | Kalli-mulayan | - | Stapelia virgata |
| 117 | Kari-vembu | - | Murraya koenigi |
| 118 | Karpasi | - | Parmelia perlata |
| 119 | Katrazhai | - | Aloe barbadensis |
| 120 | Kariabolam | - | Aloe littoralis |

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|-----|---------------------|---|-----------------------------------|
| 121 | Kaakkanam | - | <i>Clitoria ternatea</i> |
| 122 | Kaakkai kolli | - | <i>Anamirta cocculus</i> |
| 123 | Kaanchori | - | <i>Tragiainvolucrata</i> |
| 124 | Kaattatti | - | <i>Bauhinia tomentosa</i> |
| 125 | Kaattaamanakku | - | <i>Jatropha curcas</i> |
| 126 | Kaappikottai | - | <i>Coffea arabica</i> |
| 127 | Kaarai | - | <i>Catunaregum spinora</i> |
| 128 | Kaarpokarisi | - | <i>Psoralea corylifolia</i> |
| 129 | Kaalaan | - | <i>Agaricus campestris</i> |
| 130 | Kitchilikizhangu | - | <i>Curcuma zeodaria</i> |
| 131 | Kitchilipazham | - | <i>Citrus aurantium</i> |
| 132 | Kiranthithakaram | - | <i>Tabernaemontana divaricata</i> |
| 133 | Kiliyural | - | |
| 134 | Kilukiluppai | - | <i>Crotalaria retusa</i> |
| 135 | Keerippundu | - | <i>Ophiorrhiza mungos</i> |
| 136 | Keeraikal | - | Greens |
| 137 | Puthina | - | <i>Mentha arvensis</i> |
| 138 | Puliyarai | - | <i>Oxalis corniculata</i> |
| 139 | Manali keerai | - | <i>Gisekia pharnaceoides</i> |
| 140 | Keeraithandu | - | <i>Amaranthus gangeticus</i> |
| 141 | Keezhkaai nelli | - | <i>Phyllanthus amarus</i> |
| 142 | Kungiliam | - | <i>Shorea robusta</i> |
| 143 | Kungumappoo | - | <i>Crocus sativus</i> |
| 144 | Kudasappaalai | - | <i>Holarrhena pubescens</i> |
| 145 | Kudiyottipoondu | - | <i>Argemone mexicana</i> |
| 146 | Kunthrikkam | - | <i>Boswellia serrata</i> |
| 147 | Kuppeimeni | - | <i>Acalypha indica</i> |
| 148 | Kuruver | - | <i>Vetiveria zizanoides</i> |
| 149 | Kurattai | - | <i>Trichosanthes tricuspidata</i> |
| 150 | Kurinjan | - | <i>Gymnema sylvestre</i> |
| 151 | Kuntri | - | <i>Abrus precatorius</i> |
| 152 | Kaezhvaragu | - | <i>Eleusine coracana</i> |
| 153 | Kodiveli | - | <i>Glycosmis arborea</i> |
| 154 | Chenkodiveli | - | <i>Plumbago rosea</i> |
| 155 | Kottikizhangu | - | <i>Aponogeton monostachyon</i> |
| 156 | Koththumalli | - | <i>Coriandrum sativum</i> |
| 157 | Kollu | - | <i>Macrotyloma uniflorum</i> |
| 158 | Kollukkaivelai | - | <i>Tephrosia purpurea</i> |
| 159 | Korukkaip-puli | - | <i>Pithecellobium duke</i> |
| 160 | Konrai-Sarak-Konrai | - | <i>Cassia fistula</i> |
| 161 | Sirukonrai | - | <i>Cassia arborescens</i> |
| 162 | Senkonrai | - | <i>Cassia margiuata</i> |
| 163 | Kottam | - | <i>Costus speciosus</i> |
| 164 | Gothumai | - | <i>Triticum aestivum</i> |

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|-----|------------------------|---|---------------------------------|
| 165 | Korai | - | <i>Cyperus rotandus</i> |
| 166 | Kovai | - | <i>Coccinia grandis</i> |
| 167 | Gowrivalpul | - | |
| 168 | Sadamaanji | - | <i>Nardostachys grandiflora</i> |
| 169 | Shenbagam | - | <i>Michelia champaca</i> |
| 170 | Chathakuppai | - | <i>Anethum graveolens</i> |
| 171 | Chaarana | - | <i>Trianthema decandra</i> |
| 172 | Chandanam | - | <i>Santalum album</i> |
| 173 | Naattu jadhikai | - | <i>Myristica fragrans</i> |
| 174 | Chaathipaththiri | - | <i>Myristica fragrans</i> |
| 175 | Saamai | - | <i>Panicum sumatrense</i> |
| 176 | Shaambrani | - | <i>Styrax benzoin</i> |
| 177 | Salaamisri | - | <i>Orchis latifolia</i> |
| 178 | Sivathai | - | <i>Operculina turpethum</i> |
| 179 | Shivanar vembu | - | <i>Indigofera aspalathoides</i> |
| 180 | Chirunaagapoo | - | <i>Mesua nagassarium</i> |
| 181 | Chirupeyathi | - | <i>Ficus hispida</i> |
| 182 | Chitramutti | - | <i>Pavonia zeylanica</i> |
| 183 | Peramutti | - | <i>Pavonia odorata</i> |
| 184 | Chinni | - | <i>Acalypha fruticosa</i> |
| 185 | Cheekai | - | <i>Acacia sinuata</i> |
| 186 | Seendhil | - | <i>Tinospora cordifolia</i> |
| 187 | Porseendhil | - | |
| 188 | Seemai athi | - | <i>Ficus carica</i> |
| 189 | Cheerakam | - | <i>Cuminum cyminum</i> |
| 190 | Karuncheerakam | - | <i>Nigella sativa</i> |
| 191 | Peruncheerakam | - | <i>Pimpinella anisum</i> |
| 192 | Kaattu cheerakam | - | <i>Vernonia antihelmintica</i> |
| 193 | Chukku | - | <i>Zingiber officinale</i> |
| 194 | Chundai | - | <i>Solanum torvum</i> |
| 195 | Churai | - | <i>Lagenaria siceraria</i> |
| 196 | Chemparuthi | - | <i>Hibiscus rosa-sinensis</i> |
| 197 | Chemparathai | - | <i>Gossypium arboreum</i> |
| 198 | Chembai | - | <i>Sesbania sesban</i> |
| 199 | Cheruppadi | - | <i>Mollugo lotoides</i> |
| 200 | Cheviyam | - | <i>Piper nigrum</i> |
| 201 | Sembu | - | <i>Colocasia esculenta</i> |
| 202 | Cherankottai | - | <i>Semecarpus anacardium</i> |
| 203 | Cholam | - | <i>Sorghum vulgare</i> |
| 204 | Thakarai (Usithakarai) | - | <i>Cassia tora</i> |
| 205 | Thakkali | - | <i>Physalis minima</i> |
| 206 | Manathathakkali | - | <i>Solanum nigrum</i> |
| 207 | Thannirvittan kizhangu | - | <i>Asparagus racemosus</i> |
| 208 | Tharuppai | - | <i>Desmostachya bipinnata</i> |
| 209 | Thavasurungai | - | <i>Rungia parviflora</i> |
| 210 | Thazhuthazhai | - | <i>Clerodendrum phlomoidis</i> |

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|-----|--------------------|---|-----------------------------------|
| 211 | Thaamarai | - | <i>Nelumbo nucifera</i> |
| 212 | Thaazhai | - | <i>Pandanus odoratissimus</i> |
| 213 | Thaalisa-paththiri | - | <i>Abies spectabilis</i> |
| 214 | Thaantri | - | <i>Terminalia bellirica</i> |
| 215 | Thippili | - | <i>Piper longum</i> |
| 216 | Thippiliver | - | <i>Piper longum</i> |
| 217 | Thirakshai | - | <i>Vitis vinifera</i> |
| 218 | Thinai | - | <i>Setaria italica</i> |
| 219 | Thutthi | - | <i>Abutilon indicum</i> |
| 220 | Thuvarai | - | <i>Cajanus cajan</i> |
| 221 | Thumbai | - | <i>Leucas aspera</i> |
| 222 | Thulasi | - | <i>Ocimum sanctum</i> |
| 223 | Thuthuvelai | - | <i>Solanum trilobatum</i> |
| 224 | Thengumaram | - | <i>Cocos nucifera</i> |
| 225 | Thelkodukku | - | <i>Heliotropium indicum</i> |
| 226 | Devadaru | - | <i>Cedrus deodara</i> |
| 227 | Thettran | - | <i>Strychnos potatorum</i> |
| 228 | Thottar Chinungi | - | <i>Mimosa pudica</i> |
| 229 | Nancharuppan | - | <i>Tylophora indica</i> |
| 230 | Naththaichuri | - | <i>Spermaceoce hispida</i> |
| 231 | Naralai | - | <i>Cayratia pedata</i> |
| 232 | Nanthiavattam | - | <i>Tabernaemontana divaricata</i> |
| 233 | Nannaari | - | <i>Hemidesmus indicus</i> |
| 234 | Naagamalli | - | <i>Rhinacanthus nasuta</i> |
| 235 | Naabi | - | <i>Aconitum napellus</i> |
| 236 | Naayuruvi | - | <i>Achyranthes aspera</i> |
| 237 | Naaval | - | <i>Syzygium cumini</i> |
| 238 | Nilavembu | - | <i>Andrographis paniculata</i> |
| 239 | Nila vaarai | - | <i>Cassia senna</i> |
| 240 | Neeradimuthu | - | <i>Hydnocarpus laurifolia</i> |
| 241 | Neermulli | - | <i>Hygrophila auriculata</i> |
| 242 | Nuna | - | <i>Mosinda tinctoria</i> |
| 243 | Neichatti | - | <i>Vernonia cinerea</i> |
| 244 | Nerunjil | - | <i>Tribulus terrestris</i> |
| 245 | Nel | - | <i>Oryza sativa</i> |
| 246 | Nelli | - | <i>Phyllanthus emblica</i> |
| 247 | Naervalam | - | <i>Croton tiglium</i> |
| 248 | Notchi | - | <i>Vitex negundo</i> |
| 249 | Payaru | - | <i>Vigna mungo</i> |
| 250 | Pachillai | - | <i>Garcinia xanthochymus</i> |
| 251 | Pappali | - | <i>Casica papaya</i> |
| 252 | Pala | - | <i>Artocarpus heterophyllus</i> |

| | | | |
|-----|-------------------|---|----------------------------------|
| 253 | Palasu | - | <i>Butea monosperma</i> |
| 254 | Parangippattai | - | <i>Smilax china</i> |
| 255 | Parppadaakam | - | <i>Hedyotis coryambose</i> |
| 256 | Panai | - | <i>Horstrus flbellifer</i> |
| 257 | Badampisin | - | |
| 258 | Pathiri | - | <i>Stereospermum colais</i> |
| 259 | Barelee | - | <i>Hordeum vulgara</i> |
| 260 | Vetpaalai | - | <i>Wrightia tinctoria</i> |
| 261 | Pirappan kizhangu | - | <i>Calanus rotang</i> |
| 262 | Peetharoghani | - | <i>Coptis teeta</i> |
| 263 | Peenarimaram | - | <i>Sterculia foetida</i> |
| 264 | Paavattai | - | <i>Pavetta indica</i> |
| 265 | Pidangunari | - | <i>Premma tomentosa</i> |
| 266 | Pirandai | - | <i>Cissus quadrangularis</i> |
| 267 | Chirupeelai | - | <i>Aerva lanata</i> |
| 268 | Pugaiyilai | - | <i>Nicotiana tobacum</i> |
| 269 | Pungu | - | <i>Pongamia pinnata</i> |
| 270 | Pulluruvi | - | <i>Dendrophthoe falcata</i> |
| 271 | Puli | - | <i>Tamarindus indicus</i> |
| 272 | Pulladi | - | <i>Desmodium gangeticum</i> |
| 273 | Puvarasu | - | <i>Thespesia populnea</i> |
| 274 | Poonaikali | - | <i>Mucuna pruriens</i> |
| 275 | Perungayam | - | <i>Ferula asafetida</i> |
| 276 | Poduthalai | - | <i>Phyta nodiflora</i> |
| 277 | Ponnanganni | - | <i>Alternanthera sessils</i> |
| 278 | Magizh | - | <i>Mimusops elengi</i> |
| 279 | Mangusthan | - | <i>Garcinia mangostana</i> |
| 280 | Manjal | - | <i>Curcuma longa</i> |
| 281 | Mara manjal | - | <i>Coscinium fenestratum</i> |
| 282 | Manjitti | - | <i>Rubia cordifolia</i> |
| 283 | Madhanakamappu | - | <i>Cycus circinalis</i> |
| 284 | Mantharai (red) | - | <i>Bauhinia purpurea</i> |
| 285 | Malli | - | <i>Jasminum grandiflorum</i> |
| 286 | Marakkarai | - | <i>Catunaregum spinosa</i> |
| 287 | Maruthu | - | <i>Terminalia arjuna</i> |
| 288 | Maa | - | <i>Mangifera indica</i> |
| 289 | Masikkai | - | <i>Quercus infectoria</i> |
| 290 | Masipathiri | - | <i>Artemisia nilagisica</i> |
| 291 | Mathulai | - | <i>Punica granatum</i> |
| 292 | Milagu | - | <i>Piper nigrum</i> |
| 293 | Vaal milagu | - | <i>Piper cubeba</i> |
| 294 | Milakaranai | - | <i>Todalia asiatica</i> |
| 295 | Musumusukkai | - | <i>Mukia madraspatana</i> |
| 296 | Mudakkatran | - | <i>Cardiospermum helicacabum</i> |

| | | | |
|-----|----------------|---|-----------------------------------|
| 297 | Murungai | - | <i>Moringa oleifera</i> |
| 298 | Mulaam | - | <i>Citrullus vulgaris</i> |
| 299 | Munnai | - | <i>Premna corymbosa</i> |
| 300 | Mukkirattai | - | <i>Boerhavia diffusa</i> |
| 301 | Mungkil | - | <i>Bambusa arundinacea</i> |
| 302 | Vasambu | - | <i>Acorus calamus</i> |
| 303 | Vandukolli | - | <i>Cassia alata</i> |
| 304 | Varagu | - | <i>Paspalum scrobiculatum</i> |
| 305 | Valampurikkai | - | <i>Helicteres isora</i> |
| 306 | Vallarai | - | <i>Centella asiatica</i> |
| 307 | Vallaikodi | - | <i>Convolvulus repens</i> |
| 308 | Vaadhanarayan | - | <i>Delonix elata</i> |
| 309 | Vaavidangum | - | <i>Embelia ribes</i> |
| 310 | Vaaluzhuvai | - | <i>Celestrus paniculatus</i> |
| 311 | Vaazhai | - | <i>Musa paradisiaca</i> |
| 312 | Vidathari | - | <i>Dichrostachys cinerea</i> |
| 313 | Viraali | - | <i>Dodonaea viscosa</i> |
| 314 | Vilvam | - | <i>Aegle marmelos</i> |
| 315 | Vilamichamver | - | <i>Plectranthus vettiveroides</i> |
| 316 | Vizhuthi | - | <i>Cadaba trifoliata</i> |
| 317 | Vilaamaram | - | <i>Limonia acidissima</i> |
| 318 | Vishamungkil | - | <i>Crinum asiaticum</i> |
| 319 | Vishnukiranthi | - | <i>Evolvulus alsinoides</i> |
| 320 | Vengayam | - | <i>Alium cepa</i> |
| 321 | Vetchi | - | <i>Ixora coccia</i> |
| 322 | Vendakai | - | <i>Abelmoschus esculantus</i> |
| 323 | Vendhayam | - | <i>Trigonella foenum</i> |
| 324 | Vellarikai | - | <i>Cucumis sativus</i> |
| 325 | Vellarugu | - | <i>Encostemma axillare</i> |
| 326 | Vellilothram | - | <i>Symplocos racemosa</i> |
| 327 | Vellulli | - | <i>Allium sativum</i> |
| 328 | Vettilai | - | <i>Piper betle</i> |
| 329 | Vembu | - | <i>Azadirachta indica</i> |
| 330 | Verkadalai | - | <i>Arachis hypogea</i> |
| 331 | Vel | - | <i>Acacia nilotica</i> |
| 332 | Velvel | - | <i>Acacia leucophloea</i> |
| 333 | Kudaivel | - | <i>Acacia latronum</i> |
| 334 | Peekkaruvel | - | <i>Acacia farnesiana</i> |
| 335 | Velai | - | <i>Cleome viscosa</i> |
| 336 | Thaivelai | - | <i>Gynandropsis gynandra</i> |

The following plants which are comparatively less important and can be studied by the students themselves with guidance of the teacher. **(20 hours)**

| Sl. No. | <u>Tamil Name</u> | <u>Botanical Name</u> |
|----------------|--------------------------|------------------------------|
| 1 | Akrottu | - Juglans regia lin. |
| 2 | Alisi virai | - Linum usitatissimum |
| 3 | Arukeerai | - Amaranthus tristis |
| 4 | Annasipazham | - Ananas comosus |
| 5 | Aaraikirai | - Marsilea quadrifolia |
| 6 | Alapagoda pazham | - Prunus domestica |
| 7 | Aal-vallikizhangu | - Manihot esculenta |
| 8 | Aattrunetti | - Neptunia oleracea |
| 9 | Aanai-katrzhai | - Agave americana |
| 10 | Aanai kunri | - Adenantha pavonina |
| 11 | Aanaippuliamaram | - Adansonia digitata |
| 12 | Rattai – peimarutti | - Anisomeles malabarica |
| 13 | Rathabolam | - Aloe barbadensis |
| 14 | Ezhathalari | - Plumeria rubra |
| 15 | Uka | - Salvadora persica |
| 16 | Uzhalathi | - |
| 17 | Usilam | - |
| 18 | Aerisalai | - |
| 19 | Aelumichan thulasi | - Ocimum gratissimum |
| 20 | Aezhilapalai | - Alstonia scholaris |
| 21 | Odukkam | - Cleistanthus collinus |
| 22 | Kakkarikikai | - Cucumis sativus |
| 23 | Kasa-kasa | - Papaver somniferum |
| 24 | Kadarpaalai | - Argyreia nervosa |
| 25 | Kadar thengai | - Lodoicea maldivica |
| 26 | Kadara naaraththai | - Citrus medica |
| 27 | Kalumichchamkai | - |
| 28 | Kavizh thumbai | - Trichodesma indicum |
| 29 | Kazhu-neer | - Nymphaea alba |
| 30 | Kalarva | - Salvadora persica |
| 31 | Chirukalarva | - Salvadora persica |
| 32 | Karkovai | - Melothria heterophylla |
| 33 | Kartaamarai | - Smilax zeylanica |
| 34 | Kaasa | - Memecylon umbellatum |
| 35 | Kaasi rathnam | - Quamoclit pennata |
| 36 | Kaattu aelumichchai | - Atalantia malabarica |
| 37 | Kaattu aellu | - Sesamum prostratum |
| 38 | Kaattu kadugu | - Cleome viscosa |
| 39 | Kaattu karuvappattai | - Cinnamomum iners |
| 40 | Kaattu thumbai | - |
| 41 | Kaattu paagal | - Momordica dioica |

| Sl. No. | <u>Tamil Name</u> | <u>Botanical Name</u> |
|----------------|--------------------------|------------------------------|
| 42 | Kaattu peipudal | - Trichosanthes lobata |
| 43 | Kaattu mullangi | - Blumea lacera |
| 44 | Kaattu Vengayam | - Urginea indica |
| 45 | Kai-vallikkodi | - Dioscorea alata |
| 46 | Kaaramani | - Vigna unguiculata |
| 47 | Kaavatambul | - Cymbopogon martinic |
| 48 | Kiranthinayagam | - |
| 49 | Kumizhamaram | - Gmelina arborea |
| 50 | Kurukkaththi | - Hiptage benghalensis |
| 51 | Kuruvich-chi | - Ehretia microphylla |
| 52 | Kuthan Kuthambai | - Cantana indica |
| 53 | Kuntharpanai | - Caryota urens |
| 54 | Kuvaikkizhangu | - Maranta arundinacea |
| 55 | Koththavarai | - Cyamopsis tetragonoloba |
| 56 | Kodaga salai | - Rungia repens |
| 57 | Gopuram thangi | - Andrographis echiodes |
| 58 | Chanappu | - Crotalaria juncea |
| 59 | Sanninayagam | - |
| 60 | Chavukkumaram | - Casuarina equisetifolia |
| 61 | Samanthipoo | - Chrysanthemum coronarium |
| 62 | Chayamaram | - Caesalpinia sappan |
| 63 | Chavvarisimaram | - |
| 64 | Chaarai paruppu | - Buchanania lanzan |
| 65 | Chinnikizhangu | - |
| 66 | Chukkankai | - |
| 67 | Chukkan kirai | - Rumex vesicarius |
| 68 | Chulukku nayagam | - |
| 69 | Suriyakanthi | - Helianthus annus |
| 70 | Cheppu – nerunjil | - Indigofera enneaphylla |
| 71 | Chevaganar kizhangu | - Gloriosa superba |
| 72 | Peyavarai | - Cassia occidentalis |
| 73 | Thakkolam | - |
| 74 | Tamaraththam | - Avarrhoa carambola |
| 75 | Thara | - Fumaria parviflora |
| 76 | Thalippanai | - Corypha umbraculifera |
| 77 | Thillai | - Excoecaria agallocha |
| 78 | Thumbilkkai | - Diospyros peregrina |
| 79 | Thurinjibeen | - Alhagi maurorum |
| 80 | Thekku | - Tectona grandis |
| 81 | Naruvili | - Cordia dichotoma |
| 82 | Naaganam | - |
| 83 | Naagathali | - Opuntia dillenii |
| 84 | Naanal | - Saccharum spontaneum |
| 85 | Nilakkadambu | - Asarum europaeum |

| Sl. No. | <u>Tamil Name</u> | <u>Botanical Name</u> |
|----------------|--------------------------|------------------------------|
| 86 | Nilakumizh | - Gmelina asiatica |
| 87 | Nilappanai | - Curculigo orchioides |
| 88 | Nilavaamanakku | - |
| 89 | Ninral chinungi | - |
| 90 | Neeralari | - Polygorum barbatum |
| 91 | Neerbrahmi | - Bacopa monnieri |
| 92 | Neerpula | - Phyllanthus reticulatus |
| 93 | Neermel neruppu | - Ammania baccifera |
| 94 | Nettilingam | - Polyalthia longifolia |
| 95 | Neithar kizhangu | - Nymphaea pubescens |
| 96 | Pannimonthan kizhangu | - Trapa natans |
| 97 | Paruththi | - Gossypium herbaceum |
| 98 | Motchai | - Lablab purpureus |
| 99 | Chemparuththi | - Gossypium arboretum |
| 100 | Parangikkai | - Cucurbita maxima |
| 101 | Panneerpoo | - Rosa centifolia |
| 102 | Paakal | - Momorchica charantia |
| 103 | Paalai | - Manikara hexandra |
| 104 | Piramiya vazhukkai | - Bacopa monniesi |
| 105 | Piraa | - Streblus asper |
| 106 | Pilimbi | - Averrhoa bilimbi |
| 107 | Pilavai kolli | - |
| 108 | Pudal | - Trichosanthes cucumesina |
| 109 | Punnai | - Calophyllum inophyllum |
| 110 | Ponmusuttai | - Sida acuta |
| 111 | Manippungu | - Sapindus lausifolia |
| 112 | Musarkaathilai | - Ipomea pes-caprae |
| 113 | Maavilangu | - Crateava magna |
| 114 | Munthiri | - Anacardium occidentale |
| 115 | Mullangi | - Raphanus sativus |
| 116 | Modagavalli | - Sterculia foetida |
| 117 | Valli | - Dioscorea esculenta |
| 118 | Chevalli | - Dioscorea purpurea |
| 119 | Vaagai | - Albizia lebbeck |
| 120 | Karuvaagai | - Albizia odoratissima |
| 121 | Vaadhumai | - Prunus dulcis |
| 122 | Vizhalarisi | - Seed of red grass |
| 123 | Peru-lavangappattai | - Cinnamomum macrocarpum |
| 124 | Peyatti | - Ficus hispida |
| 125 | Vengai | - Pterocarpus marsupium |
| 126 | Aruvada | - Ruta chalepensis |
| 127 | Ezhuttani poondu | - Launaea pinnatifida |
| 128 | Karimulli | - Solanum anguini |
| 129 | Kaanaam vaazhai | - Commelina benghalensis |

| Sl. No. | <u>Tamil Name</u> | <u>Botanical Name</u> |
|----------------|--------------------------|------------------------------|
| 130 | Seeththa | - Anona squamosa |
| 131 | Pallipundu | - striga lutea |
| 132 | Valendrabolam | - Commiphora myrrh |

Mooligai - Practicals.

Total Hours : 100

| | |
|---------------|------------------|
| 1. Manappagu | (8 hours) |
| 2. Kudineer | (8 hours) |
| 3. Chooranam | (8 hours) |
| 4. Vadagam | (8 hours) |
| 5. Nei | (8 hours) |
| 6. Rasaayanam | (8 hours) |
| 7. Ilagam | (8 hours) |
| 8. Maathirai | (8 hours) |
| 9. Vennai | (8 hours) |
| 10. Parpam | (8 hours) |
| 11. Thailam | (8 hours) |
| 12. Pasai | (8 hours) |
| 13. Theeneer | (4 hours) |

Reference Books

- 1) Gunapadam – Mooligai Vaguppu – by Dr. Murugesamudaliar
- 2) Materia Medica – Vol I & II – by Dr. Natkarani.
- 3) Mooligai Iyal – By – Dr.V.Arunachalam M.D.Siddha.

GUNAPAADAM -PAPER II (THATHU AND VILANGINAM)

(MATERIA MEDICA –METALS, MINERALS AND ANIMAL KINGDOM)

Total Hours : 200

INTRODUCTION (25 hours)

- Introduction to General Pharmacology (Gunapadam)
- Classification of metals & minerals
- Instruments used for medicine preparation, description about specific techniques, including the special technique of drug preparation.
- Acid distillation formulae.
- Converting ancient measurements into new metric units.
- Internal applications – 32, Definition, examples & their life span
- How to form a medicine production unit
- Classification of combustion (Spudam)
- Study of friendly drugs (Synergetic) and antagonistic drugs.
- Classification of drugs based on five elements

Ulogangal – Metals (20 hours)

| Sl. No | Tamil Name | English Name / Scientific Name |
|---------------|-------------------|---------------------------------------|
| 1 | Ayam | Iron |
| 2 | Ekkhu | Steel |
| 3 | Kareeyam | Lead |
| 4 | Kandham | Magnetic Oxide of Iron |
| 5 | Thambram | Copper |
| 6 | Naagam | Zinc |
| 7 | Thankam | Gold |
| 8 | Mandooram | Ferrous Ferric Oxide |
| 9 | Velleeyam | Tin |
| 10 | Velli | Silver |

II. Pancha Sootham - Mercury & its ores (15 hours)

| Sl. No | Tamil Name | English Name / Scientific Name |
|---------------|-------------------|---|
| 1 | Rasam | Mercury |
| 2 | Rasa chendhooram | Red Sulphide of mercury |
| 3 | Lingam | Cinnabar – Natural |
| 4 | Pooram | Calomel - Hydragryum subchloride |
| 5 | Veeram | Corrosive sublimate - Hydrogyrum per chloride |

III. Paashanagal - Metal Salts (25 hours)

| Sl. No | Tamil Name | English Name / Scientific Name |
|---------------|-------------------|--|
| 1 | Anjanakal | Antimony Sulphide |
| 2 | Kanthakam | Sulphur |
| 3 | Gowri paashanam | Yellow Oxide of arsenic (Synthetic) |
| 4 | Thaalagam | Yellow Arsenic Trisulphide |
| 5 | Thottipaashanam | A pharmaceutical preparation of Arsenic combined with mercury & sulphur. |

| Sl. No | Tamil Name | English Name / Scientific Name |
|--------|---------------------|----------------------------------|
| 6 | Nava pashaanangal | Nine kinds of metal salts |
| 7 | Pancha paashanangal | Five kinds of metal salts |
| 8 | Manosilai | Red Arsenic Disulphide (Realger) |
| 9 | Mirudhaar sinki | Galena (Lead Sulphide) |
| 10 | Vellaipaashanam | Arsenum Acidum (White Arsenic) |

IV. Karasaram – Salts

(30 hours)

| Sl. No | Tamil Name | English Name / Scientific Name |
|--------|------------------|--|
| 1 | Applakkaaram | Sodium Carbonate impure |
| 2 | Indhuppu | Sodium Chloride Impure (RockSalt) |
| 3 | Evatchaaram | Potassium Carbonate impure |
| 4 | Ekambachaaram | A Prepared Salt (an efflorescentsalt) |
| 5 | Kadal nurai | Sea froth engendered by submarine fire |
| 6 | Kanavaai odu | OS SEPIAE (Cuttle fish bone) |
| 7 | Gandhiuppu | Salts of Sulphur |
| 8 | Gandhaga lavanam | Salt obtained from Sulphur, mixed with other ingredients (Consolidated sea salt) |
| 9 | Kalluppu | Salt found in lumps deposited on beds of rocks at the bottom of the sea |
| 10 | Kariuppu | Sodium chloride (Common salt) |
| 11 | Kaaichulavanam | Salt produced from the earth impregnated with soda |
| 12 | Cheenaakkaaram | Alum (Aluminous Sulphate) |
| 13 | Soodan | Camphor |
| 14 | Thilalavanam | A salt derived from sessamum |
| 15 | Navauppu mezhugu | Waxy preparation comprises with salts |
| 16 | Navachchaaram | Ammonium chloridum (Sal ammoniac) |
| 17 | Pachai karpooram | Borneo camphor (Crude camphor) |
| 18 | Panchalavanam | Mixture of five salts |
| 19 | Pidaalavanam | Black salt |
| 20 | Pooneeru | Fuller's earth |
| 21 | Amber | Ambra arasea |
| 22 | Valaiyaluppu | Extracted salt from fuller's earth (Glass gall) |
| 23 | Vengaaram | Sodium biborate (Borax) |
| 24 | Vediuppu | Potassium nitrate (Salt petre) |
| 25 | Attuppu | A boiled salt obtained from salt petre |

V. Navamanigal – Gems

(15 hours)

| Sl. No | Tamil Name | English Name / Scientific Name |
|--------|--------------|--------------------------------|
| 1 | Komedhagam | Onyx (Berly) |
| 2 | Neelamani | Sapphire |
| 3 | Pavazham | Coral |
| 4 | Pushparaagam | Topaz, Yellow Topaz |
| 5 | Maragadham | Emerald |
| 6 | Maanickam | Ruby (Carbuncle) |

| Sl. No | Tamil Name | English Name / Scientific Name |
|--------|-------------|--------------------------------|
| 7 | Vaidooriyam | Cats eye (Chryso prase) |
| 8 | Vairam | Diamond |
| 9 | Muthu | Pearl |

Pavazham & Muthu to be studied in detail, rest of other gems may be studied briefly.

VI. Uparasam - Minerals (Natural Substances) (20 hours)

| Sl. No | Tamil Name | English Name / Scientific Name |
|--------|---------------------|-----------------------------------|
| 1 | Appiragam | Mica |
| 2 | Annabedhi | Ferri Sulphas (Green vitriol) |
| 3 | Karpoorasilaasathu | Crystallised foliated Gypsum |
| 4 | Kalnaar | Asbestos |
| 5 | Kal-matham | |
| 6 | Karchunnam | Lime stone |
| 7 | Kaadikkaaram | Nitrate of silver |
| 8 | Kaavikkal | Red ochre |
| 9 | Gomuthra silaasathu | Asphaltum (Asphalt mineral piteh) |
| 10 | Thurusu | Cupric sulphate (Blue vitriol) |
| 11 | Nandukkal | Fossil stone crab |
| 12 | Nimilai | Bismuth |
| 13 | Paalthutham | Sulphate of zinc |
| 14 | Saathirabedhi | |

JEEVAM -MATERIA MEDICA (ANIMAL KINGDOM) (50 hours)

| Sl. No | Tamil Name | English Name / Scientific Name |
|--------|--------------------|--|
| 1) | Attai | Hirudo Medicinalis (Speckled leech) |
| 2) | Aamai | Chelonia Turtle (Tortoise) |
| 3) | Aalkaattipatchi | Lapwing bird (Vanellus indicus) |
| 4) | Indrakopa poochi | Mutilla Occidentalis |
| 5) | Iragukal | Feathers |
| 6) | Udumbu | Varanus Sps (Monitor) |
| 7) | Eri vandu | Mylabris Sps. |
| 8) | Elumbugal | Bones |
| 9) | Onan | Calotis (Common Agemaid Lizard) |
| 10) | Kasthuri | Moschus moschiferus musk |
| 11) | Kaandamiruga kombu | Rhinoceros unicornis |
| 12) | Kilinjil | Ostrea edults linn (Common oyster shell) |
| 13) | Kulambugal | Hoofs |
| 14) | Kulavikkoondu | Wasps nest |
| 15) | Kombarakku | Carteria Lacca (Lac) |
| 16) | Kombugal | Horns |
| 17) | Korochanam | Fel Borinum purifactum (Oxbile) |
| 18) | Kozhi | Gallus domes (Domestic cock & hen) |
| 19) | Sangu | Turbinella rapa (Conch Shell) |
| 20) | Chaanam | Dung |
| 21) | Siruneer | Urine |

| Sl. No | Tamil Name | English Name / Scientific Name |
|---------------|-----------------------|---|
| 22) | Suraa | Squalus carcharius (Shark) |
| 23) | Thantham | Teeth |
| 24) | Thaen | Honey |
| 25) | Nandu | Crab |
| 26) | Nathai | Fresh Water Snail |
| 27) | Nari echam | Jackal's excreta |
| 28) | Palagarai | Cypraea moneta Linn (Cowry) |
| 29) | Pantri | Sus indicushog (Pig) |
| 30) | Paambu chattai | Snake's slough |
| 31) | Palum pal porutkalum | Milk and milk products |
| 32) | Pitchi | Bile |
| 33) | Puli | Tiger |
| 34) | Punugu | Viverra Civetta (Civet cat) |
| 35) | Poo naagam | Earth Worm |
| 36) | Mayil | Pavo Cristatus Linn (Pea Cock) |
| 37) | Maan | Deer |
| 38) | Min mini poochi | Fire fly |
| 39) | Muttai odugal | Egg shells |
| 40) | Musiru muttai | Egg of Formica Smaragdina |
| 41) | Mudhalai | Crocodills porosus (Crocodile) |
| 42) | Muthuchippi | Mytilus margaritiferus (Pearl Oyster Shell) |
| 43) | Mezhugu | Wax |
| 44) | Yaana | Elephas indicas (Elephant) |
| 45) | Mul eli | |
| 46) | Pazham thinni Vavvaal | (Bat). |
| 47) | Thavalai (Patchai). | Green coloured Frog. |
| 48) | Kaattu-Poonai. | |

Thathu Jeevam – Practical **Total Hours : 100**

| | |
|-----------------------------------|-------------------|
| 1. Sutthi (Purification of Drugs) | (10 hours) |
| 2. Chooranam | (7 hours) |
| 3. Vadagam | (7 hours) |
| 4. Maathirai | (7 hours) |
| 5. Thailam | (7 hours) |
| 6. Kuzhambu | (7 hours) |
| 7. Ilagam | (7 hours) |
| 8. Parpam | (7 hours) |
| 9. Chendhooram | (7 hours) |
| 10. Mezhugu | (7 hours) |
| 11. Vennai | (7 hours) |
| 12. Rasaayanam | (7 hours) |
| 13. Kalimbu | (7 hours) |

Preparation of Peru Marunthugal can be shown in Video to students during Practical hours **(6 hours)**

Reference books:

- 1) Text of Gunapadam – Thathu Jeeva Vaguppu – Vol. II & III – by Dr.R.Thiagarajan
- 2) Pathartha Guna Chindamani
- 3) Pathartha Guna Vilakkam – Kannusamy
- 4) Materia Medica - Vol. I & II – by Dr. Natkarni
- 5) Siddha Vaidhya Thirattu – by Dr. C.S. Uthamarayan