

MAHARASHTRA STATE BOARD OF VOCATIONAL EDUCATION EXAMINATION, MUMBAI

1	Name of Course	Diploma Course in Acupuncture Science (W. E. F. 2015-16)
2	Course Code	201420
3	Max.No.of Students Per Batch	25 Students
4	Duration	2 year
5	Type	Full Time
6	No.Of Days / Week	6 days
7	No.Of Hours /Days	7 Hrs
8	Space Required	1) Theory Class Room – 200 sqft 2) Practical Lab – 500 sqft 3) Space required for Practical of English, Elective – 1 & Elective - 2 Subject = 1200 Sq.Ft. (400 Sq.ft. x 3) = Total 1900 Sq.Ft.
9	Minimum Entry Qualification	S.S.C. Pass.
10	Objective Of Course	To create skilled Acupuncture Therapist To Improve Health of Human Society. To train and educate the society to lead and live a healthy life without fear about diseases and drugs.
11	Employment Opportunity	1). To run Acupuncture centres all over india and abroad. 2) To create awareness about acupuncture , nature and culture. 3) To Improve Health of Human Society.
12	Teachers Qualification	1) Bachelor in Yoga and Naturopathic science (BNYS). 2) GFMS, GAMS/BAMS/BHMS/MD with 2 Yrs experience 3) Experienced yoga and naturopathy teacher or Practioner with three years of experience 4) Degree / Diploma in Yoga and Naturopathy awarded by University. 5) Acupuncture Practioner with 2 yrs experience.

13] Teaching Scheme –

Ppr		Subject Code	Clock Hours / Week		Total
			Theory	Practical	
1	English (Communication Skill)	90000001	2 Hrs	1 Hrs	3 Hrs
2	Elective – I		2 Hrs	1 Hrs	3 Hrs
3	Elective – II		2 Hrs	1 Hrs	3 Hrs
4	Anatomy, physiology and pathology	20140004	3 Hrs	8 Hrs	11 Hrs
5	Philosophy & Theories of acupuncture	20140043	3 Hrs	8 Hrs	11 Hrs
6	Applied Acupuncture	20140044	3 Hrs	8 Hrs	11 Hrs
Total					42 Hrs

14] Internship Two Month Summer Internship from 1st May to 30th June is Compulsory.

15] Examination Scheme – Final Examination will be based on syllabus of both years.

Ppr	Subject	Sub Code	Theory				Practical		Total	
			Dur	Max	Min	Duration	Max	Min	Max	Min
1	English (Communication Skill)	90000001	3 Hrs	70	25	3 Hrs	30	15	100	40
2	Elective – I		3 Hrs	70	25	3 Hrs	30	15	100	40
3	Elective – II		3 Hrs	70	25	3 Hrs	30	15	100	40
4	Anatomy, physiology and pathology	20140004	3 Hrs	100	35	3 Hrs	100	50	200	85
5	Philosophy & Theories of acupuncture	20140043	3 Hrs	100	35	3 Hrs	100	50	200	85
6	Applied Acupuncture	20140044	3 Hrs	100	35	3 Hrs	100	50	200	85
Total									900	375

16] Teachers – Three Teachers per batch for vocational component. For English, Elective-I & II guest faculty on clock hour basis.

17] Student have to choose any one subject for Elective-I and Elective-II from below given subjects

18	a) For Elective I – Student can choose any one subject		b) For Elective II – Student can choose any one subject	
	Code	Subject Name	Code	Subject Name
	90000011	Applied Mathematics	90000021	Applied Sciences(Physics & Chemistry)
	90000012	Business Economics	90000022	Computer Application
	90000013	Physical Biology (Botany & Zoology)	90000023	Business Mathematics
	90000014	Entrepreneurship		
	90000015	Psychology		

Theory - I - Anatomy, Physiology and Pathology – 1st year
(Subject Code – 20140004)

Theory	Practical
ANATOMY PHYSIOLOGY Detailed Syllabus I. Basics in Anatomy 1. Introduction to Human Anatomy 2. Cell structure, properties of cell, tissues - epithelial, connective muscular, nervous 3. Digestive System and Hepato Biliary System 4. Respiratory System 5. Cardio vascular System 6. Lymphatic System 7. Bones and Joints 8. Nervous System 9. Endocrine System 10. Sense Organs Eye, ear, skin, nose, tongue 11. Excretory System 12. Reproductive System Basics 1. Introduction to Human Physiology 2. Blood 3. Cardio vascular system 4. Lymphoid System 5. Digestive system 6. Respiratory system 7. Nervous system 8. Endocrine system 9. Excretory System 10. Reproductive system 11. Sense organs	ANATOMY AND PHYSIOLOGY 1. Human Skeleton It includes - 1) Names of the Bones 2) Identification points 3) Surfaces (Skull, scapula, clavicle, humerus, radius, ulna, carpal bones, meta carpal bones, Phalanges. Innominate bone, Femur, patella tibia, fibula, tarsal bones, meta tarsal bones, Phalanges, Ribs-classification, vetebrae pieces, sternum.) 2. Human Organs Brain, Stomach Lungs, Intestines Heart, Kidney Liver, Uterus Spleen, Fallopian tubes 3. Human slides Epithelial Tissue Connective Tissue Muscular Tissue Nervous Tissue Liver Kidney Spleen Pancreas Lymphnodes Skin testes Ovary Uterus Tonsil Stomach layers Small Intestine Large Intestine 4. Blood Pressure Estimation 5. T.P.R. (Temperature, pulse, respiration) Chart 6. TC, DLC, (TC - Total count RBC Total count of WBC DLC differential count of Leucocyts)

Anatomy, Physiology and Pathology – 2nd year

Theory	Practical
PATHOLOGY 1. Urine - Analysis - Physical Examination - specific gravity PH, reaction, colour Chemical Examination - Sugar Albumin, bile salts, bile Pigments etc. Microscopic Sediment for RBC, WBC, Epithelial cells, casts, crystals, parasites Preparation of Reagents, procedure and principle of tests 2. Sputum Analysis - Physical Examination, Preparation and staining smear for Microscopic Examination 3. Semen Analysis- Physical Examination Microscopy - counting, motility, staining, Morphology, abnormal and normal forms. 4. Body Fluids - Differential count of Peritoneal, pericardial, pleural fluids and CSF, charging chamber, Identifying and counting the cells. 3. Haematology - a. Collection of Blood - Methods of collection veinpuncture, finger puncture and vacutainer methods, materials required procedures, precautions, uses of the sample and advantages of each methods. POCT (sample collection at bed side) b. Preparation of anti coagulants - Double oxalate, sodium citrate, EDTA, Heparin, action of each preparation, uses disadvantages, quantity required. c. RBC, WBC Count : Methods (Microdilution and bulk dilution) Materials required, diluting fluids, preparation, procedures, advantages of each methods, precautions, formula for calculation and clinical significance. d. Platelet count : Morphology and functions of platelets diluting	PATHOLOGY Blood Collection Precaution and smearing techniques and labelling of the sample Preparation of anticoagulants RBC, WBC, & platelet count ESR stands & ESR estimation PCV & calculation of RBC indices Hb estimation by different methods Urine - Physical Examination & Chemical Examination PRACTICAL I. Automatic Tissue Processer Microtome & Knives Centrifuge Hot air oven & Incubator Busm beaker, stop watch Glass Makers Simple balance & colorimeter Water bath - for tissue flotation Knowledge Maintenance & cleaning Care about tissue equipment II. Maintenance & preservation of Cytology slides M.P. blocks & slides Histopathology specimens and process Preparation of form section material III. Glass ware Microslides & cover slips Sample collection bottles Micropathology Cytology. IV. Immuno Haematology & blood banking ABO blood grouping techniques RH Factor Coombs test - Direct & indirect methods 34 V. Histopathology 1. Fixation of biopsy tissue 2. Processing of tissue Fixation

<p>fluids, procedure, formula for calculation and clinical significances</p> <p>e. Reticulocyte Count : Methods (dry & wet) staining, diluting fluids, normal Morphology and values, clinical significance.</p> <p>f. Haemoglobin Estimation - Materials, procedure, of Tallquist, sahlis, Alkali haldanis, cyanmeth aemoglobin and S.G. method, advantages and disadvantaes and clinical significance</p> <p>g. Estimation of PCV - Macro & Micro Method, procedure filling the tube, centrifuging and reading, advantages of each - normal values and clinical significance</p> <p>Estimation of Erythrocyte indices - calculation and importance MCV, MCH, MCHC, RDW, color index.</p> <p>h. ESR - Methods used, procedure, stages, factors affecting and clinical significance</p> <p>I. Preparation of Blood smear examination - Making ideal films - slide method, cover glass method and staining, Morphology of RBC, WBC, Platelets and Haemop araasites. Differential Leucocyte Count - counting and identification of cells - Normal values, Morphology, procedure for smears and staining clinical significance and limitation. Absolute Eosinophil count - Materials, diluting fluid, procedure, identifying and counting the cells.</p> <p>II. Special stains on peripheral blood smear and bonemarrow smears- Ramanoskys stains, Leishman, Gemsia, wrights, Mycloperoxidase stain, PAS (Periodic Acid Schiff) - Preparation, method and selection of stain, Buffer Solution. Bone Marrow Smear - Preparing smears, cuithont crush artefacts</p>	<p>Dehydration Clearing Impregnation Mounting Decalcification 3. Mounting of museum specimens</p> <p>VI. Cytology Fixations used Fluid preparation for cytological exam Slide preparation and staining Pap staining Mounting and preservation</p> <p>VII. Sickle Cell Preparation VIII. Bone Marrow Smears Preparation & Staining IX. Cougulation Test, BT, CT.</p>
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<p>staining and clinical significance.</p> <p>III. Identification of Hemoparasites - Malarial Parasite, Microfilaria, Leishman making thick and thin films procedure and identification of parasite.</p> <p>IV. Sickle Cell Preparation - Principle, procedure and Methods, Materials, clinical significance</p> <p>V. Osmotic fragility test - Methods used, materials procedure, observation reporting, normal values, factors affecting, interpretation.</p> <p>VI. Coagulation Tests</p> <p>a) Bleeding time - methods, dukes, Ivy's procedure Normal value, clinical significance</p> <p>b) Cloting time - methods, Lee & White, procedure materials, normal values, factors affecting coagulation clinical significance</p> <p>c) Prothrombin time (PT)</p> <p>d) APTT - in Detail</p> <p>VII. L.E. cell Test - Principle, procedure, materials reprotng, clinical significance and titration. Buffy coat preparation - LE Cell Test, Microfilaria Abnormal cells.</p> <p>VIII. Basics of coulter counter</p> <p>IX. Autopsy - Aims & methods of performing Autopsy cleaning, suturing and retaning the body. Cleaning autopsy instruments, tables and rooms, preservation of organs. Processing and preparation of Histopathology.</p> <p>X. Histopathology -</p> <p>1) Biopsy</p> <p>2) Processing of tissue</p> <p>a) Fixation</p> <p>b) Dehydration</p> <p>c) Clearing</p> <p>d) Impregnation</p> <p>e) Mounting</p> <p>f) Declacification of Bone</p> <p>g) Routine Paraffin staining</p> <p>h) Immuno histochemists</p> <p>3. Microtomes and Knifes</p>	
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<p>XI. Musuem Techniques</p> <p>Labelling & storage of specimens</p> <p>Methods of color maintenance</p> <p>Presentation of specimen</p> <p>Mounting labelling and cataloging the specimen</p> <p>Maintenance and cleanliness of the Museum</p> <p>Disposal of waste, safety in the lab</p> <p>XII. Immuno Haematology and Blood Banking</p> <p>i) Introduction</p> <p>2) Human blood group antigens, their inheritance and antihodies</p> <p>3) ABO Blood group systems</p> <p>4) RH Blood group system</p> <p>5) Techniques of grouping and cross matching</p> <p>6) Blood collection, Preservation and maintaining of Records</p> <p>7) Coombs Test - a) direct b) indirect</p>	
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Theory - II - PHILOSOPHY & THEORIES OF ACUPUNCTURE - 1st YEAR
(Subject Code – 20140044)

It includes following portion, for study, to set the papers and for oral and practical Examination.

History of acupuncture,

brief history of acupuncture and traditional Chinese medicine, discussion about recognition of acupuncture World Wide-WHO,
brief study on various researches in Acupuncture- China-World Wide,
TAOSIM- Basic Concept of Taoism,
Concept of Qi (Chi)- Detail description and various concept about Vital energy (Bio-energy), (life force),

YIN-YANG Theory, detailed description of Yin yang Theory, Application of theory of Yin Yang in TCM,

ZANG-FU-Theory, The study of relation of Zang-Fu theory in relation to Meridians, five elements, five senses, tissues, physiology, emotions, pain, dreams, etc, application of Zang-Fu Theory in Diagnosis,

ORGAN-CLOVK Theory and its importance,

Five element theory, the law of movement of the five-element in natural,

Mother-Son law and its applications,

Theory of exogenous pathogenic factors and endogenous emotional pathogenic factors, detailed study of relation of meridians with environments, personality, psycho-emotional state and life style,

Scientific basis and modern theories of acupuncture- Motor-Gate theory, Gate-Control theory of pain, endorphin release- Pain theory, Enkephalin theory of pain,

The recent research in Acupuncture, Principles of energy Transfer, Summary of the theories to explain the Acupuncture effects.

The concept of the Meridians and Collaterals

The concept of the Meridians and Collaterals, the nomenclature of the meridian and collaterals and their composition,

functions of the materials and collaterals,

distribution of the fourteen meridians,

cyclical flow of Qi in the twelve regular meridians,

The twelve Regular meridians-

Lung meridian

the large intestine Meridian of hand- Yangming,

the spleen- pancreases meridian of hand- Taiyin,

the heart meridian of hand- Shaoyin,

the small intestine meridian of hand- Taiyang,

the bladder meridian of foot- Shaoyin,

the kidney meridian of foot- Shaoyin,

the pericardium meridian of hand- Jueyin,

the Sanjiao meridian of hand- Shaoyang,

the gall bladder meridian of foot- Shaoyang,

the liver meridian of foot- Jueyin,

The eight extra meridians-

Du Meridian, Yangwei Meridian, Chong meridian, Ren Meridian , Yanggiao Meridian, Yinwei Meridian, dai Meridian, Yinggiao meridian.

Diagnosis & Techniques of Acupuncture

Traditional Chinese Medical Diagnosis

Methodology of case- taking and analysis,

Visual Diagnosis(inspection)- inspection of head, face, eye, nose, tongue, ear skin, nails, teeth, inspection of movement and body- language,

Tongue diagnosis,

Pulse diagnosis, technique of pulse diagnosis, various quantities of pulse diagnosis,

psycho emotional diagnosis,

differentiation of syndromes according to the eight principles- exterior and interior,

deficiency and excess, Yin and Yang,

cold and heat,

Differentiation of syndromes according to the theory of Qi and blood syndrome of blood, Differentiation of syndrome according to the theory of Zang-Fu organs

syndrome of heart and small intestine, lungs and large intestine, spleen stomach, liver and gall bladder, kidney and bladder,

complication syndrome of Zang- Fu organs,

Differentiation of syndromes according to the theory of meridians and collaterals,

pathological manifestation of the twelve meridians,

pathological manifestation of the eight extra meridians, Iridology diagnosis(Eye diagnosis), Principles of Acupuncture point selection.

Techniques of Acupuncture

Terminology of Chinese medicine and acupuncture,

description about different types of needles, Methods of needling, Sterilization and disinfection of needles

Safety measures of Acupuncture,

Complications contra indications of Acupuncture,

Ancillary techniques- three edged needle bleeding therapy, pulm blossom therapy, embedding needle, penetration puncture(point to point), strong stimulation techniques, cupping, Hydrotherapy, application of heat-hot needle, moxibustion, cold (cryopuncture), light LASER beam therapy LASER puncture-

Introduction chromo therapy,

sonopuncture, ultrasonic therapy,

electrotherapy- electro-acupuncture,(electro-anesthesia)(E.S.A),

(E.P.S), stimulated induced anesthesia(SIA)- low frequency, high frequency, ultra high frequency,

TENS(Transcutaneous electro-neuro simulation),

proportional measurement of skin in body

cutanometer,

electro-acupuncture point detectors the great law of Bu-xie,

technique of tonification and sedation,

Human meridian diagnosis electronic system

needling sensation (Degi).

(Subject Code – 20140045)

1	Disorders of nervous system
2	Disorder of respiratory system UPPER RESPIRATORY TRACT INFECTION SINUSITIS BRONCHITIS PULMONARY TUBERCULOSIS BRONCHIAL ASTHMA
3	Disease of cardio- vascular system, blood disorders CARDIAC NEUROSIS ANGINA PECTORIS MYOCARDIAL INFARCTION PALPITATION HYPERTENSION BURGER'S DISEASE
4	Disorder of gastro intestinal system, hepatic, biliary, splenic and pancreatic disorders, genito urinary disorders, INDIGESTION PAIN IN ABDOMEN PEPTIC ULCER ACUTE APPENDICITIS DIARRHOEA CONSTIPATION PILES CHRONIC CHOLECYSTITIS AND GALLSTONES VIRAL HEPATITIS CIRRHOSIS OF LIVER
3	Disorder of women,
4	Loco motor disorder-diseases of soft tissues, muscles, bones and joints,
5	Skin disorders, ear disorders AND eye disorder,
6	Endocrine disorder
7	Psychiatric Disease, ANXIETY NEUROSIS AND NEUROASTHENIA Treatment of Neuroasthenia IMPOTENCE INSOMNIA ANOREXIA NERVOSA ADDICTION Drug Addiction Alcohol Addiction Smoking TICS (HABIT SPASMS) NOCTURNAL ENURESIS MENTAL RETARDATION HYSTERIA SCHIZOPHRENIA
8	NEUROLOGICAL DISEASES HEADACHE Mechanisms of Headache Differential Diagnosis Frontal Headache Temporal Headache Occipital Headache Headache at Vertex MIGRAINE Insomnia : Headache with loss of appearance TRIGEMINAL NEURALGIA Pain in the Region of Ophthalmic Branch Pain in the Region of Maxillary Branch Pain in the Region of Mandibular Branch BELL'S PALSY SQUINT PTOSIS HEMIPLEGIA PARAPLEGIA POLIOMYELITIS WRIST DROP FOOT DROP

9	CEREBRAL PALSY Conditions characterized by spastic weakness of the muscles Extra pyramidal Disorders PERIPHERAL NEUROPATHY POSTHERPETIC NEURALGIA DISORDERS OF SPEECH EPILEPSY PARKINSONISM
10	MUSCULO-SKELETAL DISEASES Rules for the selection of the points for Musculo Skeletal Diseases RHEUMATOID ARTHRITIS DE QUERVAIN'S DISEASE CARPAL TUNNEL SYNDROME TENNIS ELBOW GOLFER'S ELBOW (PULLED ELBOW) FROZEN SHOULDER HAND SYNDROME PLANTER FASCITIS ANKYLOSING SPONDYLITIS BACKACHE SCIATICA WRY NECK (TORTICOLLIS) OSTEOARTHRITIS OF THE CERVICAL SPINE MYALGIA CHEST
11	SPECIAL SENSE ORGANS DISEASES OF THE EYE Myopia Cataract Glaucoma Acute Conjunctivitis Night Blindness Optic Neuritis Detachment of Retina Color Blindness Photophobia Optic Atrophy DISEASE OF THE EAR Tinnitus Vertigo Meniere's Disease Chronic Suppurative Otitis Media Deaf-Mutism DISEASE OF THE NOSE Rhinitis Epistaxis DISEASE OF ORAL CAVITY Toothache Aphthous Ulcers
12	UROLOGICAL DISEASES RENAL COLIC INCONTINENCE OF URINE RETENTION OF URINE ANURIA OEDEMA
13	OBSTETRIC AND GYNAECOLOGICAL DISEASES MORNING SICKNESS MALPOSITIONS OF THE FOETUS INFERTILITY AMENORRHOEA IRREGULARITIES OF MENSTRUATION DYSMENORRHOEA LEUCORRHOEA PROLAPSE OF UTERUS MANAGEMENT OF NORMAL DELIVERY
14	Pediatric disease
15	Acute disorders and emergencies
16	Pain management (analgesia)

Acupuncture anesthesia,
acupuncture in dentistry,
acupuncture in painless labour,
acupuncture in treating infections,
acupuncture in cancers.

Ancillary Therapies Related to Acupuncture

Auriculo therapy (Chinese ear acupuncture therapy),
acupressure,
moxibution,
LASER therapy,
SCALP acupuncture,
SU-JOK Korean acupuncture,
cosmetic acupuncture and Homeopuncture,

Practical - III - Applied Acupuncture (1st and 2nd Year)

Here the candidate will be asked for management of acute disorders and emergencies,

Ancillary Therapies Related to Acupuncture, moxibution and therapeutic use of Acupuncture.(various disorders)

SCALP acupuncture, SU-JOK Korean acupuncture. TENS(Transcutaneous electro-neuro simulation), measurements of Tsun,

Methodology of case- taking and analysis,

Visual Diagnosis(inspection)- inspection of head, face, eye, nose, tongue, ear skin, nails, teeth, inspection of movement and body- language,

Tongue diagnosis,

Pulse diagnosis, technique of pulse diagnosis, various quantities of pulse diagnosis,

psycho emotional diagnosis,

differentiation of syndromes according to the eight principles- exterior and interior,

History of acupuncture,

brief history of acupuncture and traditional Chinese medicine, discussion about recognition of acupuncture World Wide-WHO,

brief study on various researches in Acupuncture- China-World Wide,

TAOSIM- Basic Concept of Taoism,

Concept of Qi (Chi)- Detail description and various concept about Vital energy (Bio-energy), (life force),

YIN-YANG Theory, detailed description of Yin yang Theory, Application of theory of Yin Yang in TCM,

ZANG-FU-Theory, The study of relation of Zang-Fu theory in relation to Meridians, five elements, five senses, tissues, physiology, emotions, pain, dreams, etc, application of Zang-Fu Theory in Diagnosis,

ORGAN-CLOCK Theory and its importance.

LIST OF THE INSTRUMENTS , TOOLS & FURNITURE REQUIRED TO BE AVAILABLE IN THE INSTITUTES.

Sr.No.	Items	Required Quantity
1	Table Measuring 6'x4'	04
2	Acupuncture Needles	Minimum 25 Packets (each packet of 20 Needles)
3	Acupuncture Electro- stimulator.	02
4	Arrangement for Drinking water.	As per requirement
5	Watch	As per requirement
6	Cup board.	02
7	Weight Machine	02
8	Blood Pressure Machine with Stethoscope	02
9	Moxa Sticks	25
10	Cunometer	As per requirement
11	Benches or desks	25
12	Chalks or White Board marker and Duster	As per requirement
13	Scale	As per requirement
14	Charts of concerned subjects	As per requirement
15	Notice Board for information for the students.	As per requirement
16	Human Skeleton	As per requirement

Book Reference:

Mind & Vision Dr.R.S.Agarwal

Practical approach To Acupuncture Dr.Prabha Borwankar

Acupuncture Dr.H.Bhojraj

Clinical Acupuncture by Prof.Anton Jayasuriya

Acupuncture Felix Mann

Gray's Anatomy

Text book of Acupuncture

ATLAS OF ACUPUNCTURE

Acupuncture the classic by Hr. E. Ganesen

Nature, knowledge, imagery in an Ancient Chinese Medical Text by Paul U Unschuld

Anatomy, Physiology, health education- Dr. N. Murugesh.
