

**Lokmanya Tilak Municipal Medical College & General Hospital, Sion, Mumbai-22**

**CBME based Annual Teaching Program for Phase I - 2019 - 20 Batch**

**1<sup>st</sup> September to 1<sup>st</sup> December 2019**

	<b>ANATOMY</b>	<b>PHYSIOLOGY</b>	<b>BIOCHEMISTRY</b>
<b>Lecture</b>	Anatomical Terminology (AN1) (1Hr) Gross Anatomy – Inferior Extremity (AN15 to 20)(12Hrs) Gross Anatomy – Abdomen and Pelvis (AN44 to 49)(15Hrs) General Anatomy (AN1 to 7)(6Hrs) General Histology (AN65 to 72)(6Hrs) Systemic Histology – Gastrointestinal System, Liver, Gall bladder, Pancreas, Urinary System, Female Reproductive System, Male Reproductive System (AN52) (7Hrs) General Embryology (AN76 to 81)(6Hrs) Systemic Embryology – Alimentary System, Urinary System, Female Reproductive System, Male Reproductive System, Diaphragm (AN52)(7Hrs)	General physiology- PY1.1-1.5,1.9(5 hrs) Nerve – PY3.1-3.6,1.8(8 hrs) Muscle – PY3.7-3.11,3.13(8hr) Blood – PY2.1-2.10(15hrs) G.I.T. –PY 4.1-4.9(11hrs ) Renal system -PY7.1-7.6(9hrs) Reproductive system –PY9.1-9.9(9hrs)	Cell-Bio-1.1 (1Hr) Chemistry of Carbohydrates –Bio-3.1 (2 Hrs) Chemistry of Lipids –Bio-4.1 (3 Hrs) Chemistry of Proteins –Bio-5.1 (1 Hrs) Digestion & Absorption- Bio-3.2,3.3, 4.2 & 5.3 ( 3 Hrs) Hemoglobin- structure Bio-5.2(1hr) Hemoglobin Meta- Bi-6.11,6.12 ( 3 Hrs) Vitamin K , folic acid & B12, Iron – Bi 6.5, 6.39, 6.10 (2 Hr) Biological Oxidation –Bi 6.6(2 Hrs) Acid Base Balance & Water Electrolyte Balance- Bi 6.7 (4 Hrs) RFT, Renal failure, Nephrotic syndrome LFT- Bi 6.13,11 to 6.14 (2 Hrs) ECM, Vitamin C- Bi-9.1 & 9.2, 6.5 ( 3 Hrs) Vitamin D, Ca, Ph Bi- 6.5, 6.9,6.10 ( 2Hrs) Immunity Bi-10- to 10.5 (3 Hrs)
<b>Demonstration/ Small group/ DOAP session</b>	Anatomical Terminology (AN1)(1Hr) Ethics in Anatomy (AN82)(1Hr) Osteology - Inferior Extremity (AN14)(5Hrs) Osteology – Abdomen and Pelvis (AN53)(2Hrs) Radiography, Living Anatomy and Surface marking - Inferior Extremity (AN20)(3Hrs) Radiography - Abdomen and Pelvis (AN54)(2Hrs) Living Anatomy and Surface marking - Abdomen and Pelvis (AN55)(2Hrs) Sectional Anatomy - Abdomen and Pelvis (AN 51)(1Hr)	Total SGT (pract) = 68hrs  1. Hematology (Demo)-PY2.12,2.13 2. nerve- muscle –(Demo)- PY3.18(6) hrs 3. Hematology (DOAP)-PY2.11 4. Clinical examination(DOAP)- PY4.10,11.13,5.12 5. Muscle (DOAP)-PY3.14 6. BLS (DOAP)-PY11.14 7. Renal-(SGT)-PY7.9	Interpretation of ABG - Bi 6.8, 11.16 (1Hrs) Interpretation of LFT, RFT- Bi-6.15 (2 Hrs) SGOT, SGPT Bi-2.2 (2Hrs) Lab Equipments, Safety & BMW- Bi-11.1 ( 2 Hrs) Buffers- Bi-11.2 ( 2 Hrs) Normal Urine – Bi 11.3 ( 1 Hrs) Colorimetry & Spectrophotometry - Bi- 11.6 , 11.18- 1 Hrs Electrolyte analysis by ISE – Bi- 11.16 ( 1 Hr)

<b>Practical</b>	Dissection - Inferior Extremity (AN15 to 20)(18Hrs) Dissection - Abdomen and Pelvis (AN44 to 49)(40Hrs) Histology - General Histology (AN65 to 72)(14Hrs) Systemic Histology – GIT, Liver, Gall bladder, Pancreas, Urinary System, FRS, MRS (AN52)(18Hrs)	8. Nerve (SGT)-PY3.17 9. Muscle (SGT)-PY3.12 10. Revision(SGT)	Normal Urine – Bi 11.4 ( 2 Hrs) Practical estimation Creatinine, - Bi 11.7,11.21,11.23 ( 3 Hrs) Estimation of Blood Urea- Bi-11.21 ( 3 Hrs) Estimation of Calcium- Bi-11.11 ( 3 hrs) Estimation of Phosphorus-Bi-11.11 (3 Hrs) Estimation of Bilirubin- Bi-11.12-(3 Hrs) Estimation of SGOT, SGPT Bi- 11.13 (2 Hrs) Estimation of ALP- Bi-11.14 ( 3 Hrs)
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**11<sup>th</sup> December 2019 to 25<sup>th</sup> February 2020**

	<b>ANATOMY</b>	<b>PHYSIOLOGY</b>	<b>BIOCHEMISTRY</b>
<b>Lecture</b>	Gross Anatomy–Superior Extremity - Pectoral region, Breast (AN9),Axilla, Shoulder and Scapular region (AN10), Joints - Pectoral girdle (AN13) (10Hrs) Gross Anatomy – Thorax (AN21 to 24)(8Hrs) Gross Anatomy – Head, Neck (AN27 to 43)(13Hrs) Neuroanatomy (AN56 to 63)(13Hrs) Genetics (AN73 to 75)(6Hrs) Systemic Histology – Respiratory System (AN25), Salivary glands, Tongue, Endocrine glands, Eye, Ear (AN43), Nervous System (AN64)(5Hrs) Systemic Embryology –Respiratory System, Circulatory system (AN25), Face, Palate, Tongue, Branchial apparatus, Eye, Ear, Endocrine glands (AN43), Nervous System (AN64)(11Hrs)	Renal system –(PY7.6-7.8)3 hrs Reproductive –(PY9.10-9.12) 3 hrs Respiratory system- (PY6.1-6.7) 15 hrs cardiovascular system(PY5.1-5.11) – 18hrs CR changes during exercise- (PY11.4)2hrs  Neurophysiology –(PY10.1-10.4) 8 hrs Endocrinology- (PY8.4)3 hrs	Enzymes, Pancreatitis – Bio-2.1,2.3 to 2.7 (4 Hrs) Metabolism of Carbohydrates- Bi- 3.4-3.7 ( 5 Hrs) Metabolism of Lipids- Bi- 4.3,4.4 ,4.6, including beta Oxidation- Bi-6.6 ( Hrs-4)  Metabolism of Proteins- Bi- 5.4, 9.3 ( Hrs- 7 ) Integration- Bi 6.1 (1 Hrs) Nucleic acid Chemistry- Bi-7.1 (2 Hrs) Nucleic acid metabolism, Gout – Bi 6.2 to 6.4( 02 Hrs) Genetics-Bi-7.2 -7.4 (6 Hrs) Coenzyme Vitamins in detail- Bi-6.5 (3 Hrs) <b>Diabetes Mellitus Integration-</b> Bi-3.8,3.9 (2 hrs)
<b>Demonstration/ Small group/ DOAP</b>	Osteology - Superior Extremity – Clavicle, Scapula, Humerus (AN8)(3Hrs) Osteology – Thorax (AN21)(2Hrs) Osteology – Head, Neck (AN26)(6Hrs) Radiography, Living Anatomy and Surface	Total SGT=pract.62 hrs+ tutorial 15hrs=77 hrs 1. cardiac muscle graphs(DEMO)- PY3.18	Interpretation of lipid Profile Bi- 4.5 & 4.7 ( 1 Hr) Interpretation of lab tests related to Proteins- bi-5.5 (1 Hr) Amino acid Chromatography, Paper, TLC

<b>session</b>	marking – Thorax (AN25)(3Hrs) Radiography, Living Anatomy and Surface marking - Head, Neck (AN43)(3Hrs)	2. Examination of Respiratory system (DOAP) -PY6.8-6.10 3. BLS(DOAP)-PY11.14 4. Examination of CVS (DOAP)-PY5.12-5.16	- Bi 11.5 & 11.16( 2 Hrs) Protein electrophoresis, PAGE- Bi- 11.16- (2 Hrs) DNA Isolation Bi-11.16 (1 Hrs) <b>Diabetes Mellitus Integ-</b> Bi-3.10 (1 Hr)
<b>Prosections</b>	Brain and Spinal cord (AN56 to 63)(16Hrs)		
<b>Practical</b>	Dissection –Superior Extremity - Pectoral region, Breast (AN9),Axilla, Shoulder and Scapular region (AN10), Joints - Pectoral girdle (AN13)(10Hrs) Dissection – Thorax (AN21 to 24)(15Hrs) Dissection – Head, Neck (AN27 to 43)(60Hrs) Systemic Histology – Respiratory System (AN25), Salivary glands, Tongue, Endocrine glands, Eye, Ear (AN43), Nervous System (AN64) (14Hrs)		Estimation of TP, Albumin & AG Ratio – Bi-11.8,11.21 & 11.22 ( 3 Hrs) Estimation of Total Cholesterol, HDL Cholesterol Bi-11.9 (3 Hrs) Estimation of Triglycerides- Bi -11.10 ( 3 Hrs) Estimation of Plasma glucose- Bi-11.21 ( 3 Hrs)
<b>6<sup>th</sup> March to 5<sup>th</sup> July 2020</b>			
	<b>ANATOMY</b>	<b>PHYSIOLOGY</b>	<b>BIOCHEMISTRY</b>
<b>Lecture</b>	Gross Anatomy –Superior Extremity – Arm and cubital fossa, Forearm, Hand (AN11 to 13)(8Hrs) Systemic Embryology – Development of upper and lower limb (AN13, 20)(2Hrs) Gross Anatomy– Vertebral column (AN50)(2Hrs) Integrated teaching (40Hrs) Revision – Embryology and Histology(18Hrs)	Neurophysiology(PY10.4-10.10) <b>14hrs</b> Endocrinology(8.1-8.5) – <b>9hrs</b> Sp. Senses(10.13-10.19)- <b>9hrs</b>  Infancy(11.6) – <b>1 hr</b> , Aging(11.7) - <b>1hr</b> ,  temperature regulation(11.1-11.3)- <b>2 hrs</b> , sedentary life style(11.5)- <b>1hr</b> ,  meditation(11.12) - <b>1hr</b> ,brain death(11.11) – <b>1hr</b>	Thyroid function tests, iodine & Adrenal function tests- Bi 6.9,6.10 6.13,6.14 (2 Hrs) Xenobiotics- Bi-7.5 (1 Hrs) Antioxidants, Oxidative stress, Vit E, Selenium Bi-7.6,7.7,6.5,6.9,6.10- (4 Hrs) Nutrition- Bi-8.1-8.5 ( 4 Hrs) Minerals- Bi-6.9,6.10 ( 2 Hrs) Cancer Bi-10.1,10.2 ( 2 Hrs) CSF-Bi-11.15- (1 Hrs) Energy content of food, fatty acids- Bi 11.23 7 11.24 ( 2 Hrs) Vitamin A –Bi- 6.5 ( 1 Hr)
<b>Demonstration/ Small</b>	Osteology - Superior Extremity – Radius, Ulna, Articulated hand (AN8)(4Hrs) Radiography, Living Anatomy and Surface	<b>Total(SGT)-pract 34 hrs+ tutorial 42 hrs= 76 hrs</b>	Interpretation of Thyroid function tests & Adrenal function tests- Bi-6.15 ( 2 Hrs) Abnormal Urine, Proteinuria, oedema Bi-

<b>group/ DOAP session</b>	marking – Superior Extremity (AN13)(3Hrs) Vertebral column (AN50)(2Hrs) Revision – Superior and Inferior Extremity, Thorax, Abdomen, Pelvis, Head, Neck, Neuroanatomy (27Hrs)	<ol style="list-style-type: none"> <li>1. Clinical examination of nervous system(DOAP)-PY10.11,10.20</li> <li>2. Perimetry(DOAP)-PY10.20</li> <li>3. Growth chart &amp; anthropometry(SGT)-PY11.9-11.10</li> <li>4. EEG(SGT)-PY10.12</li> </ol> SGT---SGT (Tutorial ) – 42hrs	11.4, 11.20 (02 Hrs) ELISA – Bi-11.16, ( 2 Hrs) Immunodiffusion- Bi-11.16 (1 Hr) Autoanalyser- Bi-11.16 (2 Hrs) Quality Control Bi-11.16 (2 Hrs) Rationale of biochemical tests in following conditions. Diabetes Mellitus, Dyslipidemia, Myocardial Infarction, Renal failure, Nephrotic syndrome, Proteinuria, oedema, Gout, Jaundice, Liver diseases, Pancreatitis, Disorders of Acid Base Balance – Bi- 11.17 ( 24 Hrs)
<b>Practical</b>	Dissection –Superior Extremity (AN11 to 13)(20Hrs) Revision – Superior and Inferior Extremity, Thorax, Abdomen, Pelvis, Head, Neck, Neuroanatomy Prosections, Histology (85Hrs)		Abnormal Urine Bi-11.4,11.20 (02 Hrs)
<b>Early Clinical Exposure &amp; Self- Directed Learning</b>	<ol style="list-style-type: none"> <li>1. Clinical Anatomy of Inferior Extremity, Abdomen and Pelvis(13Hrs)</li> <li>2. Clinical Anatomy of Thorax, Head, Neck, Neuroanatomy (20Hrs)</li> <li>3. Clinical Anatomy of Superior Extremity, Vertebral column (3Hrs)</li> </ol> ( Total – 36 hrs)	<ol style="list-style-type: none"> <li>1. Visit to blood bank</li> <li>2. Anaemia &amp; jaundice ward visit</li> <li>3. Clinical examination of CVS (ward)</li> <li>4. Clinical examination of RS (ward)</li> <li>5. ECG interpretation normal and abnormal</li> <li>6. Lung function tests-x-ray/PFT/ spirometry</li> <li>7. Clinical examination of abdomen (ward)</li> </ol>	<ol style="list-style-type: none"> <li>1. Visit to Blood sample collection area- Bi -11.1</li> <li>2. Visit to Clinical Biochemistry Laboratory - Bi -11.16,11.17</li> <li>3. Visit to Emergency Laboratory- ABG analysis- Bi -6.8 &amp; 11.16</li> <li>4. Visit to Dialysis Unit- Bi -6.13 to 6.15</li> <li>5. Visit to Nutrition Rehabilitation Centre- Bi -18.1 to 18.5</li> <li>6. Visit to Endocrine OPD- Bi -6.13 to 6.15</li> <li>7. Visit to Thalessemia Centre - Bi - 6.12 ( Total – 30 hrs)</li> </ol>

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|  |  | <ol style="list-style-type: none"><li>8. Visit to dialysis centre/CRF patients</li><li>9. Thyroid /diabetes mellitus patients (OPD)</li><li>10. Pregnancy/parturition videos</li><li>11. Clinical examination of CNS (ward)</li><li>12. visit to ENT/Ophthalmic OPD</li></ol> <p>(Total-30 Hrs)</p> |  |
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**AETCOM: Total -34 Hrs**

Module 1.1: What does it mean to be a doctor?- 8 Hrs

Module 1.2: What does it mean to be a patient?- 8 Hrs

Module 1.3: The doctor-patient relationship- 7 Hrs

Module 1.4: The foundations of communication: 1 – 7 Hrs

Module 1.5: The cadaver as our first teacher- 4 Hrs

**Formative Assessment -1:**

Theory – Anatomy -2<sup>nd</sup>Dec, Physiology - 3<sup>rd</sup>Dec, Biochemistry - 4<sup>th</sup>Dec 2019

Practical – 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup>, 9<sup>th</sup>, 10<sup>th</sup> Dec 2019

**Formative Assessment -2:**

Theory – Anatomy- 26<sup>th</sup> Feb, Physiology- 27<sup>th</sup>Feb, Biochemistry - 28<sup>th</sup>Feb 2020

Practical – 29<sup>th</sup>Feb, 2<sup>nd</sup>,3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> March 2020

**Formative Assessment -3:Preliminary Examination:**

Theory - Anatomy- 6<sup>th</sup>, 7<sup>th</sup>July, Physiology- 9<sup>th</sup>, 10<sup>th</sup> July, Biochemistry - 13<sup>th</sup>, 14<sup>th</sup>July

Practical – 16<sup>th</sup>, 17<sup>th</sup>, 20<sup>th</sup>, 21<sup>st</sup>, 22<sup>nd</sup> July 2020

31<sup>st</sup> July 2020 – Internal Assessment should be ready

**Physiology – Gadre Memorable Exam:** 3<sup>rd</sup> August 2020

**Anatomy Dr. B. M. Bhargava Competitive Exam:** 6<sup>th</sup> August 2020

**Biochemistry Quiz:** 14<sup>th</sup> August 2020

**Trinity:** 16<sup>th</sup> to 21<sup>st</sup> March 2020

**SRS:** 3<sup>rd</sup>& 4<sup>th</sup> April 2020

**Ashwamedh:** 16<sup>th</sup> to 19<sup>th</sup> April 2020

**Winter Vacation:** 20<sup>th</sup> Oct 2019 to 3<sup>rd</sup> Nov 2019

**Summer Vacation:** 2<sup>nd</sup> May 2020 to 15<sup>th</sup> May 2020

(Vacations – subject to MUHS Academic Calendar 2019-2020 expected)