

# **ALLIED & HEALTHCARE INSTITUTE**

## **CMLT**

### **Eligibility: -**

CMLT also known as Certificate in Medical Laboratory Technology is a certificate course for the students. Its Eligibility criteria is-

- Passed out 10<sup>th</sup> & 12<sup>th</sup> with 50% marks in Science Stream.

### **Job Profile: -**

- Assistant Lab Technician

## **1<sup>ST</sup> YEAR**

### **Anatomy & Physiology: -**

1. Introduction
2. The Cell
3. The Tissues
4. Organs And Systems
5. Skeletal System
6. Joints of The Skeleton
7. Blood
8. Lymphatic System
9. Cardiovascular System
10. Respiratory System
11. Urinary System
12. The Muscular System
13. The Physiology of Muscle
14. Central Nervous System
15. Autonomic Nervous System
16. Organs of Special Senses
17. Skin And Regulation of Body Temperature
18. Digestive System
19. Accessory Organs of Digestion
20. Metabolism, Diet And Vitamins
21. Endocrine System
22. Reproductive System
23. Process of Reproduction

## **Microbiology: -**

1. Morphology And Classification of Bacteria
2. Common Staining Technique
3. Nutrition And Growth of Bacteria
4. Sterilisation And Disinfection
5. Bio Medical Waste Management
6. Laboratory Safety And Standards Precautions
7. Normal Flora of Human Body
8. Pathogenesis of Bacterial Infection
9. Bacterial Culture Media
10. Methods of Isolation of bacteria
11. Bacterial Identification Tests
12. Antibiotic Susceptibility Testing
13. Quality Control In Microbiology
14. Streptococcus
15. Streptococcus
16. Pneumococcus
17. Enterococcus
18. Nisseriae
19. Corynebacterium
20. Mycobacterium
21. Escherichia Coli And Klebsiella Escherichia Coli
22. Citrobacter, Edwardsiella, Enterobacter And Serratia
23. Salmonella
24. Shigella
25. Proteus And Providencia
26. Yersinia
27. Vibrio And Related Organism
28. Pseudomonas
29. Haemophilus
30. Bordetella

## **Biochemistry: -**

1. General Biochemistry
2. Carbohydrates
3. Carbohydrate Metabolism
4. Proteins
5. Lipids
6. Nucleotides
7. Clinical Chemistry
8. Enzymes

9. Biological Oxidation, Electron Transfer Chain And Oxidative Phosphorylation
10. Vitamins
11. Minerals
12. Hormones

## **Pathology: -**

### ➤ **Haematology**

1. Composition of Blood And Normal Erythropoiesis
2. Technique of Blood Collection
3. Estimation of Hemoglobin
4. Hematocrit
5. Selection And Registration of Donors
6. ABO Blood Grouping
7. Erythrocyte Sedimentation Rate (ESR)
8. Staining of PBF And Interpretation of Normal And Abnormal Red Cell Morphology
9. Maturation And Development of Leucocytes
10. Formation of Platelets of Leucocytes
11. Formation of Platelets and Thrombocytopenia
12. Rhesus Blood Group
13. Pretransfusion or Compatibility Testing

### ➤ **Histopathology**

1. Introduction To Histopathology
2. Light Microscopy
3. Special Light Microscopy
4. Receiving of Surgical Specimens
5. Fixation of tissues
6. Decalcification
7. Tissue Processing
8. Embedding
9. Microtome
10. Hematoxylin And Eosin Staining
11. Staining Methods To Demonstrate Special/Specific tissues
12. Metachromatic Staining
13. Lipid Stain
14. Staining Techniques For Demonstration And Identification of Microorganisms
15. Cryostat And Frozen Section