



DESHĒEYA VIDYASHALA SAMITHI (R.)
DVS COLLEGE OF ARTS AND SCIENCE, SHIVAMOGGA.
DEPARTMENT OF ZOOLOGY
SUBBAIAH RESEARCH CENTER
SUBBAIAH INSTITUTE OF MEDICAL SCIENCES CAMPUS
PURLE, SHIVAMOGGA.



APPRAISAL COURSE IN HEALTH CARE DIAGNOSTIC SCIENCES
SYLLABUS

Unit I

1.1 DISORDERS OF CARBOHYDRATE METABOLISM:

Diabetes mellitus, glycohemoglobins, hypo-glycemias, galactosemia and ketone bodies. Various types of glucose tolerance tests. Glycogen storage diseases.

1.2 DISORDERS OF LIPID METABOLISM:

Physiology of lipids/lipoproteins. Lipidosis. Clinical inter-relationships of lipids (sphingolipidosis and multiple sclerosis), lipoproteins and apolipoproteins. Diagnostic tests for HDL-cholesterol, LDL-cholesterol and triglyceride disorders.

1.3 DISORDERS OF ACID-BASE BALANCE AND THEIR RESPIRATORY AND RENAL MECHANISMS:

Assessment and clinical manifestations of renal, hepatic, pancreatic, gastric and intestinal functions. Clinical importance of bilirubin. Diagnostic enzymes: Principles of diagnostic enzymology. Clinical significance of aspartate aminotransferase, alanine aminotransferase, creatine kinase, aldolase and lactate dehydrogenase. Enzyme tests in determination of myocardial infarction. Enzymes of pancreatic origin and biliary tract

1.4 HORMONAL DISTURBANCES

Protein hormones (anterior pituitary hormones, posterior pituitary hormones), steroid hormones, adrenocorticosteroids, and reproductive endocrinology. Disturbances in thyroid function.

1.5 HEMATOLOGY - Blood composition, Blood Tests, Types, RBC Count, WBC count, D.L.C, Platelet count, Erythrocyte Sedimentary Rate (E.S.R), Packed Cell Volume (P.C.V.), RDW, Hemoglobin, MCH, MCHC, MCV Blood enzyme tests. bleeding time, clotting time, blood group typing

Unit II

2.1 Microbiology: Specimen (blood, urine, sputum, faeces, others), Specimen processing: smears, staining, cultures, susceptibility testing Usual techniques for microbe and virus identification Immunology- Radio Immuno Assay (RIA), Enzyme Linked Immunosorbent Assay (ELISA), Western blotting and vaccines
Serology- serological tests for TB other bacterial and viral diseases

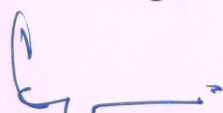
2.2 Pathology : Cytology and histopathology- Biopsy- **Tissue(Biopsy sample) analysis**-liquid biopsy-FNA, pap test, skin biopsy, skin swab..

2.3. Radiology: Medical imaging: X-Ray ,PET, MRI and CT Scan.

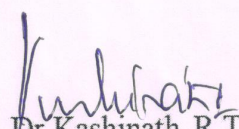
2.4 Body fluids testing- Blood, Urine, CSF, other body fluids analysis , Stool & sputum analysis

UNIT III Instrumentation: Types of analyzers -Semi-auto analyzer -Batch analyzer - Random Access autoanalyzers. Steps in the automated systems -Responsibilities of a technician in the maintenance of the analyzers

UNIT IV Diagnostic reference values and significance.


Dr Geetha,
Course Coordinator
DVS COLLEGE OF
ARTS & SCIENCE,
Shivamogga

Dr Latha Nagendra,
Chairperson
SUBBAIAH RESEARCH
CENTER,
Shivamogga


Dr Kashinath R T,
Course Director
SUBBAIAH RESEARCH
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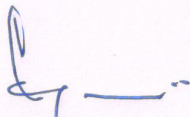


APPRAISAL COURSE IN HEALTH CARE DIAGNOSTIC SCIENCES

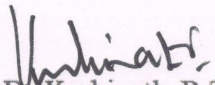
Time table, Resource persons and course contents

	Resource person	Timings	Contents
1.	DrKashinath R T , Director, Research center Subbaiah Institute of Medical Sciences Shivamogga	29/01/2020 -3-5pm 31/01/2020- 4-6pm, 1/02/2020-2-4.30pm 2/02/2020-10-12noon	Biochemistry 1. Biochemistry,; Aims and scope 2. Various sub branches 3. Brief outline of biochemistry 4. Instrumentation in clinical biochemistry 5 Biochemistry as related to diagnosis 6. Various biochemical tests and their utility.
2.	DrGeethaSamak, Associate Professor &Head , Dept of Zoology, DVS College of Arts and Science,	30/01/20220 -4-5.30pm	Introductory topics and Test
3.	DrVaibhav, Subbaiah Institute of Medical Sciences Shivamogga	6/02/2020-4-6pm 7/02/2020-4-6pm 8/02/2020-2-4pm	Pathology: Aims and scope 1. Various sub branches 2. Brief outline of Human Pathology 3. Instrumentation in clinical pathology 4. Pathology as related clinical diagnosis 5. Various pathological tests and their utility
4.	DrSwaroop&DrKiran , Subbaiah Institute of Medical Sciences Shivamogga	14/02/2020-4-6pm 15/02/2020-2-4pm 16/02/2020-10-12noon	Microbiology: Aims and scope 1. Various sub branches 2. Brief outline of Human Microbiology 3. Microbiology as related to diagnosis 4. Various Microbiological tests and their utility 5.

5.	DrPrashanth, Subbaiah Institute of Medical Sciences Shivamogga & Prof. N Kumaraswamy DVS College of Arts Science Shimoga	17/02/2020 2-5pm 18/02/2020 2-5pm 19/02/2020 2-5pm 20/02/2020 2-5 pm	Practical, Museum/lab visit Anatomy and Pathology Museum visit
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