D.K.M. COLLEGE FOR WOMEN (AUTONOMOUS), VELLORE-1

DEPARTMENT OF ZOOLOGY

MEDICAL LABORATORY TECHNOLOGY (15CZO6D)

SECTION-A (UNIT-I)

1. First Aid
2. Biohazards
3. Autoclaves
4. Sterilizers
5. Personal Protective Equipment
6. Spectrophotometry
7. ECG
8. Blood Pressure gauge
9. Auscultation
10. Stethoscope
11. Glucometer
12. Sphygmomanometer
13. Centrifugal Force
14. RPM
15. Centrifuge

SECTION-B

1. What is First Aid and list out the contents in a basic first aid kit?
2. What are the safety measures in laboratory?
3. What are the major causes of accidents in a laboratory?
4. What are the main types of hazards in a laboratory?
5. Describe about stethoscope in detail.

SECTION-C

1. What does the Beer Lambert law state and derive it?
2. Mention the best practices for cleaning and sterilization in a laboratory?
3. Describe about laboratory centrifuge in detail.
4. Explain about glucometer and its types in detail.

SECTION-A (UNIT-II)

1. Haemoglobinometer
2. Haemocytometer
3. Polycythaemia
4. Anaemia
5. Leukaemia
6. Leukopenia
7. Thrombocytosis
8. Thrombocytopenia
9. Neubauer chamber
10. Cell viability
11. Trypan Blue
12. Clotting Time
13. Bleeding Time
14. Blood Thinners
15. Anticoagulants
16. Hirudin
17. Heparin

SECTION-B

1. How do you count blood cells using haemocytometer?
2. Describe the method to collect capillary blood.
3. Discuss about venepuncture in detail.
4. Describe the methods to determine the clotting time.
5. Discuss about anticoagulant in detail.

SECTION-C

1. How will you determine the haemoglobin content of the given blood sample?
2. How will you determine the viability of blood cell?
3. Discuss about the test to assess the function of platelets.
4. Explain the mechanism involved in blood coagulation.

SECTION-A (UNIT-III)

1. Serum
2. Erythroblastosis fetalis
3. ABO incompatibility
4. ABO blood group system
5. Rh typing
6. Cross-matching
7. Transfusion reactions
8. Blood Transfusion
9. Donor
10. Recipient
11. Blood Bank
12. Transfusion Medicine
13. Hemolytic Disease
14. HDN
15. Isoimmunization
16. Cord Blood Bank
17. Bleeding Time
18. Clotting Time

SECTION-B

1. How will you determine if the donor's blood is compatible with the blood of an intended recipient?
2. What is Rh factor and why is it important?
3. Mention the rules of donating blood.
4. How is the Collection and processing of blood products performed in blood bank?

SECTION-C

1. Justify whether ABO grouping is a test performed to determine an individual's blood type.
2. How is blood cross matching performed?
3. Discuss the basic principles involved in blood transfusion.

SECTION-A (UNIT-IV)

1. Serological *test*
2. Widal test
3. Mantoux test

4. AFB Staining
5. TCBS agar
6. E*ntamoeba histolytica* antigen
7. HIV
8. ELISA
9. Urobilinogen
10. Koplik's spot
11. RT-PCR
12. Koplik's spot
13. Microfilariae

SECTION-B

1. How will you isolate and identify V*ibrio cholerae* from a given stool sample?
2. Discuss about the Laboratory diagnosis of amoebiasis.
3. How is the clinical diagnosis of filariasis done?
4. Describe the Laboratory test for identification of measles virus genotypes.
5. How is the laboratory confirmation of mumps performed?

SECTION-C

1. How do you diagnose typhoid fever?
2. Write the protocol for AFB staining.
3. Describe the laboratory methods for the diagnosis of TB.
4. Explain about the plate-based assay technique designed for detecting and quantifying HIV.

SECTION-A (UNIT-V)

1. Hypoglycemia
2. Hyperglycemia
3. Gestational diabetes
4. DAM
5. Allantoin
6. Uricase
7. Glomerular Filtration Rate
8. Creatinine
9. Human Chorionic Gonadotropin
10. Stool Guaiac test

11. Gram's stain
12. Cerebro Spinal Fluid
13. Aeromonas
14. Candida sp.

SECTION-B

1. How is the clinical examination of faeces done?
2. How is the sputum analysis performed in a laboratory?
3. How is the semen analysis performed in a laboratory?
4. Discuss about the test done to analyse the conditions of brain and spine.

SECTION-C

1. Explain the test to detect the presence of hCG.
2. How is the serum creatinine analysis performed in a laboratory?
3. How will you determine the estimation of blood urea?
4. Discuss the estimation of blood glucose by glucose oxidase method.