

**STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086**  
**(For Candidates admitted during the academic year 2011 – 12)**  
**SUBJECT CODE: 11ZL/MC/LT54**

**B.Sc. DEGREE EXAMINATION NOVEMBER 2013**  
**BRANCH VI A – ADVANCED ZOOLOGY & BIOTECHNOLOGY**  
**FIFTH SEMESTER**

**COURSE : MAJOR CORE**  
**PAPER : MEDICAL LABORATORY TECHNOLOGY**  
**TIME : 3 HOURS** **MAX. MARKS: 100**

**SECTION – A**

**ANSWER ALL THE QUESTIONS** **(10 x 3 = 30)**

**1. FILL IN THE BLANKS**

- a) \_\_\_\_\_ fluid is used for total count of RBCs.
- b) Autoclave operates at a temperature of \_\_\_\_\_.
- c) \_\_\_\_\_ is used to find out the specific gravity of urine.

**2. DISTINGUISH BETWEEN**

- a) Leucopenia and Leucocytosis.
- b) Erythropoiesis and Leucopoiesis.
- c) Casts and Crystals

3. Draw a neat labelled diagram of the Haemoglobinometer.

4. What is a) GLP  
b) Azoospermia  
c) RIA

5. Give the normal range for  
a) Bleeding Time    b) ESR    c) Blood glucose

**6. STATE WHETHER THE FOLLOWING STATEMENTS ARE TRUE OR FALSE:**

- a) Wintrobe's tube is used for estimation of Haemoglobin.
- b) Hepatitis is a blood borne disease.
- c) Leishman stain is used for DC of WBC.
- d) High count of erythrocytes is called anaemia.
- e) Two serum enzymes are PSA and HCG.
- f) Hot air oven is an example for sterilization by moist heat.

**7. MATCH THE FOLLOWING:**

- |                         |                     |
|-------------------------|---------------------|
| a) Microhaematocrit     | - Clotting          |
| b) Neutrophils          | - PCV               |
| c) Antisera             | - HIV               |
| d) Prothrombin time     | - Blood grouping    |
| e) ELISA                | - Biomedical wastes |
| f) Needles and Syringes | - Granulocytes      |

8. Give the diagnostic significance of the following tests.  
a) Platelet count    b) Serum cholesterol    c) Rh typing
9. Give the expansion for the following.  
a) ESR                      b) TB                      c) ALT
10. Name the causative organism for  
a) Elephantiasis            b) Malaria            c) AIDS

### SECTION – B

**ANSWER ANY FIVE QUESTIONS**

**(5 x 6 = 30)**

11. Write the procedure for estimation of PCV. Give the normal values.  
12. Draw neat labelled diagram of the different types of leucocytes. Give the normal value of DC.  
13. Write a short note on macroscopic analysis of urine.  
14. Discuss briefly the pathological changes that occur in Tuberculosis.  
15. Describe the procedure for the estimation of blood urea by DAM method.  
16. Explain briefly the physiology of AST.  
17. Outline the classification of biomedical wastes.

### SECTION – C

**ANSWER ANY TWO QUESTIONS**

**(2 x 20 = 40)**

18. Give an account of principle, procedure, normal value and clinical significance for estimation of Haemoglobin.  
19. Write an essay on stool analysis and its significance in parasitology.  
20. Give a detailed account on sterilization of laboratory items.  
21. Describe in detail Blood transfusion.

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