

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
(For Candidates admitted during the academic year 2011 – 12 & thereafter)

SUBJECT CODE: 11ZL/MC/LT54

B.Sc. DEGREE EXAMINATION - NOVEMBER 2015
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. Erythropoiesis is controlled by the hormone _____
- b. The type of Leucocyte that migrate to the site of inflammation _____
- c. The Plasmodium infected blood cells can be identified by the presence of _____ crystals.

2. DISTINGUISH BETWEEN:

- a. RBC and WBC
- b. Blood grouping and blood transfusion
- c. Normal saline and Ringer's solution

3. Draw a neat diagram of Haemocytometer.

4. Define the following:

- a. Clotting time
- b. Anticoagulants
- c. Bleeding time

5. Give one word for:

- a. Increased blood glucose
- b. Increased Red blood cells in the blood
- c. Increased Excretion of urine

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

- a. Mantoux test is the test for Hepatitis
- b. HCG is a glycoprotein seen in the Urine of normal human females.
- c. AIDS is caused by Retroviral infection.
- d. Benedict's test is done to test the presence of glucose.
- e. The presence of Proteins is confirmed by Western Blotting techniques.
- f. Alanine transaminase is a test done to diagnose liver problems.

7. MATCH THE FOLLOWING:

- | | |
|-----------------------------------|-------------------|
| a. <i>Wucheria bancrofti</i> | Pork Tape worm |
| b. <i>Dracunculus medinensis</i> | Sheep Liver Fluke |
| c. <i>Taenia solium</i> | Round worm |
| d. <i>Fasciola hepatica</i> | Pin worms |
| e. <i>Ascaris lumbricoides</i> | Guniea worm |
| f. <i>Enterobius vermicularis</i> | Filiarial worm |

8. Give the diagnostic significance of the following tests:
- If CSF looks like a cloudy, it might be due to presence of
 - Decreased sperm count is a condition called
 - Presence of Red blood cells in the Urine leads to
9. Give the expansion of the following:
- ELISA
 - RIA
 - TB
10. Name the causative agents for
- African Sleeping sickness
 - Kala azar
 - Yellow fever

SECTION – B

ANSWER ANY FIVE QUESTIONS

(5 x 6=30)

- Explain various sterilization methods practiced in a laboratory.
- Briefly explain the various types of anemia.
- Draw and explain Leucopoiesis.
- Explain the mode of infection and pathological changes in the case of AIDS.
- Enumerate the procedure to estimate Total serum Cholesterol.
- Classify Biomedical waste and ways to manage these wastes.
- Explain the principles of western Blotting and its applications.

SECTION - C

ANSWER ANY TWO QUESTIONS

(2 x 20=40)

- Write notes on
 - Haemoglobin estimation
 - Erythrocyte sedimentation rate
- Explain in detail the process of blood coagulation
- Write the procedure for collection and analysis of cerebrospinal fluid and seminal fluid.
- Write an account on the various tests performed for pregnancy in the laboratory.
