

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086
(For candidates admitted from the academic year 2019 – 2020 & thereafter)

SUBJECT CODE: 19ZL/ME/LT45
B. Sc. DEGREE EXAMINATION, APRIL 2022
BRANCH VI.A. – ADVANCED ZOOLOGY AND BIOTECHNOLOGY
FOURTH SEMESTER

COURSE : ALLIED – ELECTIVE
PAPER : MEDICAL LABORATORY TECHNOLOGY
TIME : 3 HOURS MAX. MARKS: 100

SECTION A

ANSWER **ALL** THE QUESTIONS. (10x3 =30)

1. Fill in the blanks
 - a. ----- test is used to estimate blood cholesterol levels.
 - b. At the site of injury, platelets adhere to the injured areas and form a -----.
 - c. ----- is a skilled technician who carries out venipuncture.
2. Distinguish between
 - a. Acanthocyte and Drepanocyte
 - b. ABO typing and Rh typing
 - c. Miliary tuberculosis and Ghon focus
3. Draw a neat labeled diagram of the Neubauer Chamber.
4. What is meant by the following?
 - a. Romanowsky stain
 - b. Occult blood
 - c. Haemostasis
5. Give the normal range for
 - a. Platelet count
 - b. Urine volume
 - c. RBC count in women
6. State whether the following statements are True/False.
 - a. Hepatitis B virus is a DNA virus.
 - b. Bilirubin is a bile salt.
 - c. *Entamoeba gingivalis* is a common intestinal parasite in man.
7. How is spinal tap procedure carried out?
8. Give the diagnostic significance of the following tests:
 - a. Drabkin's test
 - b. Haematocrit
 - c. Smear - MP
9. Give the expansion of the following:
 - a. PCV
 - b. IDA
 - c. GLP
10. Define the following:
 - a. Bleeding Time
 - b. Pancytopenia
 - c. Cirrhosis

SECTION B

ANSWER **ANY FIVE** QUESTIONS (5x6=30)

11. Summarise the sterilization methods that use heat.

12. Give the procedure for the estimation of ESR.
13. Analyse the various transfusion reactions.
14. Discuss total sperm count, sperm motility and sperm morphology with reference to infertility.
15. Describe the tests performed during chemical analysis of urine.
16. Elaborate the mode of action and usage of anticoagulants.
17. Explain the immunological methods to confirm pregnancy.

SECTION C

ANSWER ANY TWO QUESTIONS

(2x20 = 40)

18. Classify biomedical wastes and add a note on Biomedical Waste Management.
19. With neat labeled diagrams, explain the processes of leucopoiesis and thrombopoiesis.
20. Explain the mode of infection, pathological changes, symptoms and treatment for AIDS and TB.
21. Describe the tests performed for estimation of blood glucose and blood urea and elaborate on their diagnostic significance.
