

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2023  
(Fifth Semester)

Branch - ZOOLOGY

DISCIPLINE SPECIFIC ELECTIVE -I :  
MEDICAL LABORATORY TECHNOLOGY

Time : Three Hours

Max. Marks: 50

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (5 x 1 = 5)

1. \_\_\_\_\_ is used for sterilizing metallic devices like needles, scalpels.  
(i) Flaming (ii) Incineration  
(iii) Hot air oven (iv) Steam
2. What is the lifespan of RBC?  
(i) 80 days (ii) 100 days  
(iii) 120 days (iv) 150 days
3. Which test used to detect hemolytic Anaemia?  
(i) Genetic test (ii) Coomb's test  
(iii) Peripheral Blood Smear (iv) Schilling Test
4. How soon should the specimen be analyzed?  
(i) Within 3 hours (ii) Within one day  
(iii) Within 10 minutes (iv) Within 1 hour
5. Upon standing at room temperature a urine pH typically:  
(i) Increases  
(ii) Remains the same  
(iii) Changes depending on bacterial concentration  
(iv) Decreases

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 3 = 15)

- 6 a) Explain the safety measures followed in the laboratory.  
(or)  
b) Illustrate the principle and uses of Compound Microscope.
- 7 a) Summarise the procedure for differential leucocytes count.  
(or)  
b) Depict the Sahli's method of estimating the haemoglobin in blood.
- 8 a) Describe the method of Blood Grouping.  
(or)  
b) Outline the procedure for Coomb's test.
- 9 a) Discuss the importance of Analysis of Semen.  
(or)  
b) Examine the chemical analysis of cerebro spinal fluid.
- 10 a) Give a brief account on the gastric analysis.  
(or)  
b) Discuss the procedure and applications of the Glucose Tolerance test.

Cont...

**SECTION -C (30 Marks)**

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a) Discuss the various sterilization methods used in laboratory.  
(or)  
b) Narrate the working principle of centrifuge and mention its types.
- 12 a) How will you calculate the total RBC from the blood?  
(or)  
b) Explain the determination of Bleeding time and Clotting time.
- 13 a) List out the various components of blood used for transfusion.  
(or)  
b) Discuss about the genetic abnormality of sickle cell anaemia in blood.
- 14 a) Elucidate the method of collection of cerebrospinal fluid.  
(or)  
b) Discuss the methods of urine analysis for sugar, urea and albumin.
- 15 a) Examine the liver function test in clinical chemistry.  
(or)  
b) Discuss the procedure and applications of faecal analysis tests.

Z-Z-Z

END