

U.G. 6th Semester Examination - 2025**ZOOLOGY****[PROGRAMME]****Skill Enhancement Course(SEC)****Course Code : ZOOL-G-SEC-T-04****[Medical Diagnostic Techniques]****Full Marks : 40****Time : 2 Hours***The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.*

1. Answer any five of the following: $2 \times 5 = 10$
- a) Define Packed Cell Volume (PCV).
 - b) Name two enzymes analyzed in the Liver Function Test (LFT).
 - c) Name two abnormal constituents of urine and their significance.
 - d) Define metastasis in the context of tumor biology.
 - e) Which diagnostic tests are used to detect malarial parasites?
 - f) What is the normal value of ESR in adult males and females?

[Turn Over]

- g) Why is ELISA preferred in the detection of infectious diseases?
- h) Name two common symptoms of Hepatitis.
2. Answer any two of the following: $5 \times 2 = 10$
- a) Explain the importance of lipid profiling in clinical diagnosis.
- b) What is MRI? Write its significance in medical imaging. $2+3$
- c) Write the causative agent of Hepatitis and malignant malaria. Write the advantages and disadvantages of PET. $2+3$
- d) Describe the steps involved in preparing a blood smear using Leishman's stain.
3. Answer any two of the following: $10 \times 2 = 20$
- a) What is the normal blood glucose level in fasting and postprandial? What are the symptoms, cause, and remedy of diabetes mellitus? What is insulin resistance? $3+5+2$
- b) How is tuberculosis diagnosed? What are the phases of fever in a malaria patient? How platelet count done using a hemocytometer? What is the role of VLDL and triglycerides in our body? $2+3+3+2$

- c) Write down the composition of blood. Write the significance of LFT. Write the pH and specific gravity of urine. $5+3+2$
- d) Write short notes on (any two): $5+5$
- i) ELISA
- ii) X-ray
- iii) Antibiotic Sensitivity Test
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