

**2024/FYUG/EVEN/SEM/  
ZOOSEC-151T/032**

**FYUG Even Semester Exam., 2024**

**ZOOLOGY**

**( 2nd Semester )**

**Course No. : ZOOSEC-151T**

**( Medical Diagnostics )**

Full Marks : 50

Pass Marks : 20

**Time : 2 hours**

*The figures in the margin indicate full marks  
for the questions*

**SECTION—A**

**Answer any fifteen of the following questions :**

**1×15=15**

- 1. What is blood plasma?**
- 2. What is haemoglobin?**
- 3. What are the different types of granulocytes present in blood?**
- 4. What is anticoagulant?**

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5. What is abnormal sputum?
6. Why is stool analysis important?
7. What is ketonuria?
8. What do you mean by fecal occult blood test?
9. Which hormone is essential for regulating blood sugar levels?
10. What is aneurysm?
11. Name the instrument that is used to measure blood pressure.
12. What is the uncontrolled growth of abnormal cells called?
13. What is tuberculin?
14. Besides lungs, which other parts of the body can get infected by TB?
15. What organ does hepatitis affect?
16. Which hepatitis virus have DNA as genetic material?
17. What is CT scan?
18. What is sonography?
19. Mention the use of spiral CT.
20. Why is MRI so noisy?

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( Continued )

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SECTION—B

Answer any *five* of the following questions :  $2 \times 5 = 10$

21. What are blood platelets? How are blood platelets counted?
22. Write the functions of different plasma proteins present in blood.
23. What are abnormal constituents of urine?
24. Why are stool tests considered a valuable tool for diagnosis of gastrointestinal issues?
25. Differentiate between primary and secondary hypertension.
26. Write four differences between type 1 and type 2 diabetes.
27. Differentiate between latent TB and active TB.
28. Mention the names of different types of hepatitis.
29. Write the basic principle of CT scan.
30. Write the important applications of sonography.

SECTION—C

Answer any *five* of the following questions :  $5 \times 5 = 25$

31. What is ESR? Write a note on the principle of ESR and its significance.  $1 + 4 = 5$

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( Turn Over )

32. What is PCV? Briefly describe the steps involved in the measurement process of PCV. 1+4=5
33. Describe how urine is analyzed in medical diagnostics. Add a note on how glucose is detected in urine. 4+1=5
34. Write the main purposes of sputum analysis in medical diagnostics. List three types of microorganism that can be identified through sputum analysis. 3+2=5
35. Write the characteristic features of metastatic cells. Add a note on detection methods of metastasis. 2+3=5
36. What is diabetic ketoacidosis? Add a note on glucose tolerance test and HbA1c test. 1+2+2=5
37. Write a brief note on diagnosis and prevention of TB. 3+2=5
38. What do you mean by HBsAg? Write the symptoms and preventive measures of hepatitis B virus infection. 1+4=5
39. Write the basic principle of MRI. Add a note on the application of MRI in medical diagnostics. 2+3=5
40. Why are X-rays considered a minimally invasive diagnostic tool? Add a note on medical condition where X-rays can help in diagnosis. 2+3=5

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