

2019

B.Sc. (Hons)

4th Semester Examination

ZOOLOGY

Paper - SEC2T

Full Marks : 40

Time : 2 Hours

*The figures in the margin indicate full marks.  
Candidates are required to give their answers  
in their own words as far as practicable.*

**Medical Diagnostic Techniques**

1. Answer any *five* questions : 5×2=10
- (a) What is ESR ?
  - (b) What is PCV ?
  - (c) Write two abnormal constituents of urine.
  - (d) Distinguish between MRI and CT scan
  - (e) What is antibiotic sensitivity test ?

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- (f) What is malignant tumor ?
- (g) Distinguish between Type I and Type II diabetes mellitus.
- (h) Name the organ which is primarily affected in tuberculosis. State the causative agent of tuberculosis.

2. Answer any *four* questions : 4×5=20

- (a) Below is a list showing certain conditions or constituents of urine which are normally not present in the urine. What does each of these conditions / constituents indicate about the health of an individual ? 5

Condition / Constituents	Indications
i) Urine amount exceeds 2000 ml / 24 hours	
ii) Sugars in urine	
iii) Presence of haemoglobin	
iv) High amount of bilirubin	
v) Calculi in urine	

- (b) What is haemocytometer ? Briefly describe the process of platelet counting process. Write the normal value of platelet in blood. 1+3+1=5

- (c) Give a brief account of lipid profiling. Write a short note on abnormality of lipid value in blood. 3+2
- (d) Discuss the diagnosis and prevention of Diabetes Type I. 2+3
- (e) Define Primary and Secondary hypertension. Write the causes of secondary hypertension.  $2\frac{1}{2}+2\frac{1}{2}$
- (f) What is CT scan. Write the application of CT scan in medical diagnostics. 1+4
3. Answer any *one* question : 1×10
- (a) Write the name of four different types of malarial parasites. Write the symptoms of malaria infection. Briefly describe Pre-erythrocytic and Erythrocytic cycle of malarial parasite. 2+2+6
- (b) What is cancer ? Describe briefly about the detection of cancers ? What is metastasis ? Briefly describe the principle and functional approach of PET and MRI. 2+2+2+4
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[ Turn Over ]

**Sericulture**

1. Answer any *five* questions : 5×2=10

- (a) What do you mean by rendita ? State its utility.
- (b) Write the names of two non-mulberry silkworm.
- (c) What is cocoon ?
- (d) What is instar ?
- (e) What is moriculture ?
- (f) Write the name of two important proteins present in silk.
- (g) Mention the importance of installing P<sub>1</sub>, P<sub>2</sub> and P<sub>3</sub> stations in sericulture.
- (h) What is Pebrine ?

2. Answer any *four* questions : 4×5=20

- (a) Briefly describe different indigenous and exotic races of silk moth. 2½+2½
- (b) Distinguish between mulberry and non-mulberry silkworm with suitable examples. 2½+2½
- (c) What are the role of temperature and humidity in silkworm rearing ? 2½+2½

(d) Briefly discuss about the spinning process of silk and storage of silk cocoons.  $2\frac{1}{2}+2\frac{1}{2}$

(e) What is disinfectants ? Write the role of formalin and bleaching powder in silk worm rearing process.  $1+4$

(f) Briefly discuss about the size, shape and construction process of a typical rearing house for silkworm. What is Chandraki ?  $4+1$

3. Answer any *one* question :  $1 \times 10 = 10$

(a) Describe the life cycle of *Bombyx mori* with suitable diagram. Write short note on voltinism.  $5+2+3$

(b) (i) Name one fungal and one viral diseases of silkworm along with their causative agent, symptoms and control measures.  $5$

(ii) State the location of the silk gland in silkworm.  $1$

(iii) Give a labelled diagram of a silk gland and mention the functions of each part.

$2\frac{1}{2}+1\frac{1}{2}=4$