

C 41796

(Pages 2)

Name... Anjama... T.V...

Reg. No. E.L.A.M.S.20003

SECOND SEMESTER B.Sc. DEGREE EXAMINATION, APRIL/MAY 2013

(CCSS)

Zoology

Z02 B03—METHODOLOGY OF ZOOLOGICAL EXPLORATIONS

Time : Three Hours

Maximum : 30 Weightage

*Answers may be written either in English or Malayalam.
Give illustrations wherever necessary.*

I. Answer all *twelve* questions. Each question carries 0.25 weightage.

A. Objective type questions :

1 The optical device used for making accurate sketches of the objects under Microscopic observation is :

- (a) Centrifuge. (b) Camera lucida.
(c) Dark field microscopes. (d) Light microscope.

2 X-ray crystallography is used for the analysis of :

- (a) Structure of atom. (b) Colour of solutes.
(c) Absorbance of solution. (d) Concentration of solution.

3 Basic stains are used for staining :

- (a) Nucleus. (b) Protein.
(c) Lysozyme. (d) Golgibodies.

4 Which of the following method is used in trapping of Birds ?

- (a) Funnel trap. (b) Sticky trap.
(c) Malaise trap. (d) Light trap.

B. Name the following :—

- 5 Colourimeter (a) Stains.
6 Cell fractionation (b) Iron alum.
7 Metachromasia (c) Centrifuge.
8 Mordent (d) Absorbance.
(e) pH.
(f) Concentration.

Turn over

C. Fill in the blanks :

- 9 _____ is a mounting medium of permanent mount.
10 _____ enhance the colouring property of stains.
11 _____ is the technique used for the analysis of DNA.
12 _____ is used for cutting thin sections of tissues.

(12 × 0.25 = 3 weightage)

II. Short answer questions. Answer all *nine* questions :

- 13 Name any two Electron stains.
14 Trinomial nomenclature.
15 State Beer-Lambert law.
16 What is Negative staining ?
17 What is Embedding ?
18 What is Mutilation ?
19 What is Tagging ?
20 What is Freeze fixation ?
21 NMR Spectroscopy.

(9 × 1 = 9 weightage)

III. Short answer questions. Answer any *five* questions :

- 22 Briefly describe age determination in Birds.
23 Give an account on new trends in Systematics.
24 What is Cladistics ?
25 Briefly mention applications of ELISA.
26 What is mean by grades of organisation ?
27 Differentiate between Southern blotting and Northern blotting.
28 What is resolving power of a Microscope ?

(5 × 2 = 10 weightage)

IV. Essay questions. Answer any *two* questions :

- 29 Briefly describe Five kingdom classification. Mention its merits and demerits.
30 Explain the principle of Electron microscope. What are the two types of Electron microscopes ?
31 What is DNA Fingerprinting ? Briefly mention its applications.

(2 × 4 = 8 weightage)