B – 3739

(Pages : 2)

Reg. No. : .....

Name : .....

Third Semester B.Sc. Degree Examination, December 2016
First Degree Programme under CBCSS
ZOOLOGY (P)
Core Course III
ZO 1341 : Methodology and Perspectives of Science and Zoology
(2014 Admission)

Time : 3 Hours Max. Marks : 80

Instruction : ***Draw*** *diagrams* ***wherever*** *necessary.*

I. Answer **all** questions in **one** or **two** sentences. **Each** question carries **one** mark.

1) Name the two common fixatives used for electron microscopy.
2) What is DPX ?
3) What is SEM ?
4) What is a primary data ?
5) What is taxonomy ?
6) What is a trade mark ?
7) What is Ogive ?
8) What is the principle of Homonymy ?
9) What is meant by scientific knowledge ?
10) What is bioethics ?

(10×1=10 Marks)

II. Answer **any eight** of the following. (Answers **not** to exceed **one** paragraph). **Each** question carries **two** marks.

11) Write any two applications of fluorescent microscopy.
12) What is a calomel electrode ?
13) What is chromatography ?
14) What is the relationship between Mean, Median and Mode ?

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15) What is Student's t Test ?

16) What is Linnaean Hierarchy ?

17) Explain Binomial Nomenclature.

18) What are phylogenetic trees ?

19) What are vital stains ?

20) What is hypothetico-deductive model ?

21) What is plagiarism ?

22) What is relative centrifugal force ?

(8×2=16 Marks)

III. Answer **any six** of the following. (**Each** answer should **not** exceed **120** words). **Each** question carries **four** marks.

23) What is PAGE ? Explain the principle of electrophoresis and its application.

24) Calculate Mean, Median and Mode of following data :

Class :	0 – 20	20 – 40	40 – 60	60 – 80	80 – 100	100 – 120
Frequency :	7	8	12	10	8	5

25) Explain the principle and applications of autoradiography.

26) What is Intellectual Property ? Explain.

27) Explain Chi-square test. Write any two applications.

28) Comment briefly on Cladistic Taxonomy ?

29) Write briefly on ICZN.

30) Comment on Human Bias during experimentation.

31) Describe any two sampling methods.

(6×4=24 Marks)

IV. Answer **any two** of the following. **Each** question carries **fifteen** marks **each**.

32) Explain the major steps involved in histological staining technique.

33) Explain the different concepts of species.

34) Explain the principle, construction and working of phase contrast microscope.

35) Write an essay on scientific revolutions.

(2×15=30 Marks)

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