(Pages : 3) **D – 3130**

Reg. No. : .....

Name : .....

**Third Semester B.Sc. Degree Examination, December 2017**
**First Degree Programme under CBCSS**
**ZOOLOGY**
**Core Course III**
**ZO 1341 – Methodology and Perspectives of Zoology**
**(2015 Admission Onwards)**

Time : 3 Hours Max. Marks : 80

SECTION – A

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

1) What do you mean by Taxidermy ?
2) What is information ?
3) What is sedimentation coefficient ?
4) What do you mean by hypothesis ?
5) Define variable.
6) What is dark field microscope ?
7) Define standard deviation.
8) List any four branches of zoology.
9) What do you mean by empiricism ?
10) What do you mean by plagiarism ? **(10×1=10 Marks)**

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SECTION – B

II. Answer **any 8** questions. **Each** question carries **2** marks. Answer **not** to exceed one paragraph.

11) What are the optical parts of light microscope ?
12) Write note on Chi-square test.

13) Briefly explain Beer Lambert's law.

14) Comment on Zoological Survey of India.

15) Mention the importance of spectrophotometry in research.

16) Write note on census.

17) What do you mean by machine observation ?

18) Comment on Autoradiography.

19) Write note on patent.

20) What is the importance of microtome in tissue preparation ?

21) Mention the major achievements of Indian institute of Science.

22) A student collected a rare butterfly and preserved in formaldehyde, what is your opinion in this regard ? **(8×2=16 Ma**

## SECTION – C

III. Answer **any 6** questions (Answer **not** exceed **120** words). **Each** question carries **4** marks.

23) What is knowledge ? Write note on different type of knowledge.

24) Plot a Pie chart using the data :

| **Countries** | **India** | **Pakistan** | **Sri Lanka** | **Philippines** | **Peru** |
|---|---|---|---|---|---|
| **Flower exports in tons** | 1200 | 500 | 700 | 1300 | 1400 |

25) Comment on the principle and applications of TEM.

26) Mention the structure of a scientific publication.

27) What are the different types of data ?

28) Briefly explain principle and working of phase contrast microscope.

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29) Pulse rate of 30 patients is given below. Find the arithmetic mean.

| **Pulse rate** | 54 | 58 | 60 | 65 | 70 | 75 |
|---|---|---|---|---|---|---|
| **No. of Patients** | 7 | 6 | 6 | 5 | 3 | 3 |

30) Briefly explain ethics in science.

31) Write note on different type of chromatography. **(6×4=24 Marks)**

## SECTION – D

IV. Answer **any 2** questions. (**Not** more than **3** pages). **Each** question carries **15** marks.

32) Discuss scientific method in biology.

33) Write an essay on graphical presentation of data.

34) Elucidate various measures of central tendency.

35) Elaborate tissue preparation for light microscope. **(2×15=30 Marks)**

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