

B.Sc.- III (CBCS Pattern) Semester-VI  
**USCZOT15-DSE Core Paper-XV - Zoology Paper-III**  
**Micro-techniques, Bioinformatics and Biostatistics**

P. Pages : 1

Time : Three Hours



**GUG/S/25/13372**

Max. Marks : 50

- Notes : 1. All questions are compulsory carrying equal marks.  
2. Draw well labelled diagram wherever necessary.

**1. Write an account on Image processing methods in Microscopy. 10**

**OR**

- a) Staining techniques for TEM.
- b) Microscopy of living cells.

**2. Write an essay on structure and working of Rocking microtomes. 10**

**OR**

- a) Problems encountered during section cutting.
- b) Fixation & Dehydration.

**3. Write detail account on Sequence retrieval system. 10**

**OR**

- a) RNA database.
- b) Bioinformatic tools.

**4. Write an essay on Tabulation and presentation of data. 10**

**OR**

- a) Measures of central tendency.
- b) Chi Squar test.

**5. Attempt the following **any ten**. 10**

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|----------------------------|-------------------------|
| i) Visualization of cells. | ii) SEM.                |
| iii) Freeze-etch.          | iv) Embedding.          |
| v) Periodic acid Schiff.   | vi) Eosin.              |
| vii) BLAST.                | viii) FASTA             |
| ix) Phylogenetic analysis  | x) Analysis of variance |
| xi) t-test                 | xii) Standard Deviation |

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