

M.Sc. - I (Zoology) (NEP Pattern) Semester-I  
**NEP-84-4 / 01MSCZO04-4 Major Elective Paper-IV - Medical Laboratory  
Techniques**

P. Pages : 1

Time : Three Hours



**GUG/S/25/15149**

Max. Marks : 80

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- Notes :
1. All questions are compulsory.
  2. All questions carry equal marks.
  3. Illustrate your answers with well labeled diagrams wherever necessary.

1. Describe in detail different types of hazard in laboratory. **16**

**OR**

Write note on:

- a) Safety Equipment's
- b) Functioning of Clinical Laboratory

2. Give an account on Light microscopy and comment on resolution and magnification. **16**

**OR**

Write notes on:

- a) Scanning Electron Microscopy.
- b) Process of polymerase chain reaction (PCR)

3. Give an account on sources of biological variation and comment on pre-analytical variables. **16**

**OR**

Write notes on:

- a) Preservation of blood
- b) Preparation of blood smear

4. Describe in detail modern laboratory setup. **16**

**OR**

Write notes on:

- a) Laboratory safety protocols.
- b) Disposal of biomedical waste

5. Attempt the following. **16**

- a) Code of conduct of Medical laboratory personnel.
- b) Autoclave
- c) Sputum
- d) Molar solution

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