

Total No. of Printed Pages: 03

SUBJECT CODE NO:- 6570
FACULTY OF SCIENCE AND TECHNOLOGY
M.Sc. Sem-II
Zoology

Examination March/April-2022 (To be held in June/July-2022)

Instrumentation and Biological Techniques and Scientific Writing-ZOO-204 &-ZOO-205

[Time: 3:45 Hours]

[Max. Marks: 80]

N.B

Please check whether you have got the right question paper.

1. The question paper is divided into two parts.
2. Part 'A' is compulsory.
3. Attempt any five questions from Part 'B'.
4. Draw a neat labeled diagram whenever necessary.

Part 'A'

Q.1 Multiple choice questions. (Each question carries 2 marks)

20

1. Sudan Black B is often used for visualization of
 - a) Protein
 - b) Carbohydrates
 - c) Lipids
 - d) Amino acids
2. Which of the following techniques are used in Transmission Electron Microscope (TEM) for examining cellular structures?
 - a) Negative-staining
 - b) Shadow casting
 - c) Ultrathin sectioning
 - d) All of the above
3. Which of the following technique is suited for the separation large DNA fragments
 - a) AGE
 - b) PFGE
 - c) SDS-PAGE
 - d) PAGE
4. Gas chromatography can be performed in which of the following ways?
 - a) Only in columns
 - b) Only on plane surfaces
 - c) Either in column or on plane surface
 - d) None of the above
5. The main purpose of a "reference" section in a scientific paper
 - a) Is to acknowledge your colleagues who gave you advice
 - b) Is to present other papers that the reader might want to consult

- c) Is to provide a list of scientists who have repeated your research.
 d) Is to acknowledge research and concepts upon which your work
6. Which of the following is generally a method to determine whether or not to include certain details into your research article?
- Result should be both written and portrayed in either figure or tables.
 - The article should review the history of entire field
 - The paper should as much detail as possible that the journal allows and present critical information, such as key findings and important implications multiple times.
 - The paper should provide just enough detail so that an independent research can replicate your research
7. Which of the following section not a basic section of quantitative research paper?
- criticism
 - Method
 - References
 - Result
8. Which of the following piece of information is typically not on the title page of a manuscript?
- Author names
 - Authors affiliation
 - Research acknowledgement
 - Keywords
9. Which is working principle of ELISA
- Ag-ab neutralization
 - Ag-ab complex
 - Both A and B
 - None of the above
10. Due to its technicality, the most difficult section to write is often which of the following?
- Materials
 - Procedures
 - Introductions
 - Results

Part 'B'

- Q.2 Explain different cytochemical and histological methods? 12
- Q.3 Describe different types of visual aids with their significance? 12
- Q.4 Write in detail principle of polyacrylamide gel electrophoresis with its application? 12
- Q.5 Explain the structure of typical scientific paper and briefly mention their contents? 12
- Q.6 Describe the principle and application of flame emission spectroscopy? 12
- Q.7 What is the principle of ELISA? Explain its types with application? 12
- Q.8 Short notes (any two) 12

- a) Uses of word processing
- b) Cytochemistry of nucleic acids
- c) Radio Immunoassay
- d) Communication channels