

(6 pages)

Reg. No. :

Code No. : 6435

Sub. Code : HZOE 41

M.Sc. (CBCS) DEGREE EXAMINATION,
APRIL 2017.

Fourth Semester

Zoology

Elective — RESEARCH METHODOLOGY

(For those who joined in July 2012 – 2015)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer.

1. Mean, Median and Mode are

- (a) Measures of deviation
- (b) Ways of sampling
- (c) Measures of control tendency
- (d) None of the above

2. Research is

- (a) Searching again and again
- (b) Finding solution to any problem
- (c) Working in a scientific way to search for truth of any problem
- (d) None of the above

3. Which of the following is the first step in starting the Research process?

- (a) Searching sources of information to locate problem
- (b) Survey of related literature
- (c) Identification of Problem
- (d) Searching for solution to the problem

4. A common test in research demands much priority on

- (a) Reliability
- (b) Usability
- (c) Objectives
- (d) All of the above

5. Action Research means

- (a) Longitudinal research
- (b) An applied Research
- (c) A Research initiated to solve an immediate problem
- (d) None of the above

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6. A Reasoning where we start with certain particular statements and conclude with an universal statement is called
- (a) Deductive reasoning
 - (b) Inductive reasoning
 - (c) Abnormal reasoning
 - (d) Transcendental reasoning
7. Which of the following variables cannot be expressed in quantitative terms?
- (a) Socio-economic status
 - (b) Marital status
 - (c) Numerical aptitude
 - (d) Professional attitude
8. The essential qualities of a research is
- (a) Spirit of free enquiry
 - (b) Reliance on observation and evidence
 - (c) Systematization or theorizing of knowledge
 - (d) All of the above
9. In the process of conducting research formulation of hypothesis is followed by
- (a) Statement of objectives
 - (b) Analysis of Data
 - (c) Selection of Research Tools
 - (d) All of the above

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10. A Research paper is a brief report of Research work based on
- (a) Primary data only
 - (b) Secondary data only
 - (c) Both Primary and Secondary Data
 - (d) None of the above

PART B — (5 × 5 = 25 marks)

Answer ALL questions choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Write short notes on design of the Research Project.

Or

- (b) Explain the Research process with flow chart

12. (a) Discuss about the stage and ocular micrometers.

Or

- (b) Comment on Magnetic force Microscope

13. (a) Define Microtomes. Explain about freeze drying Microtomes.

Or

- (b) Explain in detail about Cytotechniques.

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14. (a) Define Blotting. Write short notes on Southern blotting

Or

- (b) Write short notes on Application and Principle of Immunohistochemistry.

15. (a) Write short notes on Protein Estimation

Or

- (b) Explain the field of application of Spectrofluorimeter.

PART C — (5 × 8 = 40 marks)

Answer ALL questions choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Discuss about the Problems encountered by Researches in India.

Or

- (b) Write an essay on safety measures to the laboratory.

17. (a) Differentiate between the atomic force and magnetic force microscopes with neat diagram.

Or

- (b) Evaluate the working principle and application of Transmission Electron Microscope.

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18. (a) Elucidate the principle and techniques of freezing and freeze drying Microtomes.

Or

- (b) Define pH. Evaluate the types, Principle and techniques of pH meter.

19. (a) Define Column Chromatography. Explain about the basic operation of Column Chromatography.

Or

- (b) Outline the Principle and application of ALC.

20. (a) Write an elaborate account on Flame Emission Photometry.

Or

- (b) Evaluate the principle and application of Turbidimetry and Nephelometry.

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