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**SUBJECT CODE NO: - FF-6589**  
**FACULTY OF SCIENCE AND TECHNOLOGY**  
**M.Sc. (Sem-III) (Zoology)**  
**Examination January-2023**  
**Applied Biotechnology-I ZOO-303**

[Time: 3:00 Hours]

[Max. Marks: 80]

Please check whether you have got the right question paper.

N. B

- 1) Question paper is divided in PART-A and PART-B
- 2) PART-A is compulsory.
- 3) Attempt any FIVE questions from the PART-B'
- 4) Draw well labelled diagrams wherever necessary.

**PART- A**

Q.1 Attempt the following multiple-choice questions.

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- 1) \_\_\_\_\_ should enter the cell in the case of activation of the reporter gene for two hybrid system.
  - a) Bait protein
  - b) Prey protein
  - c) Both of these
  - d) One of them.
- 2) PCR technique was developed by\_\_\_\_\_.
  - a) Kohler
  - b) Altman
  - c) Milstein
  - d) Kary Mullis
- 3) which of the following is not a gene expression data base?
  - a) Body Map
  - b) Fly view
  - c) Gene Bank
  - d) Seed genes
- 4) Sustainable waste management is achieved through\_\_\_\_\_.
  - a) Formulating laws
  - b) Community participation
  - c) Institutional capacity
  - d) All of these
- 5) The process of binding of primer to the denatured strands is called\_\_\_\_\_.
  - a) Annealing
  - b) Renaturation
  - c) Denaturation
  - d) None of these
- 6) Transgenic models exists for\_\_\_\_\_ disease
  - a) Cough
  - b) Rheumatoid arthritis
  - c) Pneumonia
  - d) Influenza
- 7) The size of polymeric nanoparticle nano system in around \_\_\_\_\_.
  - a) 10-1000 nm
  - b) 1-500nm
  - c) 1-3000cm
  - d) 0-5000m

- 8) Adult Cell cloning is also known as \_\_\_\_\_
- a) Biomedical cloning
  - b) Reproductive cloning
  - c) Embryo cloning
  - d) Research cloning
- 9) Maximum number of existing transgenic animals is of \_\_\_\_\_
- a) Pig
  - b) Cow
  - c) Fish
  - d) Mice
- 10) \_\_\_\_\_ plan is used as a waste management plan?
- a) Plan for reuse
  - b) Plan for recycling
  - c) The integrated plan
  - d) Plan for reducing

**PART- B (Attend any FIVE)**

- Q.2 Define solid waste and write its methods of composting. **12**
- Q.3 Describe molecular diagnosis, scope s significance **12**
- Q.4 Give an account of principles, technique and application of protein sequencing. **12**
- Q.5 Write in details 'Marine Bio-resources' **12**
- Q.6 What is nanobiotechnology and describe the morphological forms of nanoparticles. **12**
- Q.7 Describe the cellular genomics in diagnostics **12**
- Q.8 Write a note on following (Any three) **12**
- a) PCR technique.
  - b) Third generation sequencing (3Gs)
  - c) Transgenic poultry.
  - d) Embryo cloning.