SM - 32

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Seat No.	

B.Sc. (Part - III) (Semester - V) (CBCS) Examination, October - 2023

ZOOLOGY

Biotechniques and Biostatistics (Paper - XI)

Sub. Code : 79695

Day and Date : Friday, 27 - 10 - 2023 **Total Marks : 40**

Time : 10.30 a.m. to 12.30 p.m.

Instructions :
1) All questions are compulsory.
2) Figures to the right indicate full marks.
3) Draw neat labelled diagrams wherever necessary.

Q1) Select the correct alternative from the following and rewrite the complete sentence. **[8]**

a) DNA is microinjected into the fertilized egg _____.

i) after the fusion of male and female nuclei
ii) before the fusion of male and female nuclei
iii) at the time of fusion of male and female nuclei
iv) any time, it can be injected

b) Stem cells that can give rise to one type of cells in an organism are called _____.

i) Totipotent
ii) Pleuripotent
iii) Multipotent
iv) Unipotent

c) The growth of animal cells *in vitro* in a suitable culture medium is called _____.

i) Transgenesis
ii) Transformation
iii) Animal cell culture
iv) knockout

P.T.O.

d) The stem cells are preserved in _____.

i) Refrigerator ii) Liquid nitrogen

iii) Formalin iv) 70% Alcohol

e) The arrangement of data in the form of rows and columns, then it is called as _____.

i) Classification ii) Tabulation

iii) Graphical Presentation iv) Frequency distribution

f) The mean of a data is defined as _____.

i) The sum of the values is multiplied by the number of the values

ii) The sum of the values divided by the numbers of the values

iii) Divide every value by a constant number.

iv) The square of values is divided by the number of the value.

g) Which of the following methods is not a form of graphical presentation of data?

i) Line diagram ii) Frequency distribution

iii) Histogram iv) Bar diagram

h) _____ is known as Father of Biostatistics.

i) Sir Francis Galton ii) Aristotle

iii) Sir Ronald Fisher iv) Mendel

Q2) Answer the following Questions (Attempt any TWO). **[16]**

a) What is a transgenic animal? Describe the applications of the transgenic animal.

b) What is a stem cell? Describe the potencies of stem cells.

c) What is a measure of central tendency? Describe the different types of measures of central tendency.

Q3) Write short notes on (Attempt any FOUR). **[16]**

a) Nuclear transfer

b) Applications of animal cell culture

c) Modes of classification of biological data

d) Tabulation

e) Scattered diagram

f) Standard deviation