SHRI S. H. KELKAR COLLEGE OF ARTS, COMMERCE AND SCIENCE, DEVGAD. (SINDHUDURG)

SEMESTER I EXAMINATION, NOVEMBER 2023

COURSE: ZOOLOGY PAPER-II USZO102 CLASS: FYBSC

DURATION: 3 Hours MAX. MARKS:100

N.B. (1) All questions are compulsory.
(2) Figures to the right indicate marks for respective sub questions.
(3) Attempt the questions in sequence.
(4) Draw **neat labeled diagrams** wherever **necessary.**

Q.1) Multiple choice Questions **20**

A Fill in the blanks by choosing correct alternative..... **05**

i) Which one of the following is not Bio hazardous infectious material -------
a) Surgical sterilized cotton b) Virus c) Fungi d) Bacteria

ii) The ---------- is defined as the value of a variable which occurs most frequently.
a) Mode b) Median c) Mean d) Average

iii) -------- can differentiate into any other cell types.
a) Embryonic stem cells b) Neuron cells c) Cardiac cells d) Hepatic cells

iv) --------- technique is used to solve crimes by forensic scientist and legal expert.
a) Cloning b) Fermentation c) Bio markers d) DNA fingerprinting

v) ------ is the first and the simplest type of chromatography.
a) TLC b) Adsorption c) Partition d) Paper

B. Match the Following **05**

A	B
i) A vector	Explosives
ii) Central tendency	Colorimetry
iii) Saftey Symbol	PAGE
iv) Electrophoresis	Median
v) Beer- Lambert law	Plasmid

C. Say whether true or false... **05**

i) Ultracentrifuges are machines that can achieve a rotor a speed of over30,000rpm.
ii) Watson and Crick is known as father of Gene therapy
iii) Colorimeter and spectroscopy both are use to estimate the amount of analyte in the sample
iv) Retroviral vector method, is the only method use for trangenesis.
v) Kelvin scale is the most commonly used temperature scale.

D. Answer in one sentence each.... **05**

i) Define Toxic chemical
ii) Define Cloning .
iii) Explain about GLP
iv)Name any two methods used for Transgenesis.
v) Name any two type of Chromatography.

Q.2 A) Give an account of following central tendencies with merits and demerits **10**
i) mean ii) median

OR

A) With reference to safety symbols explain.
I) Corrosive ii)Biohazardus infectious material iii) Irritants iv) Compressed gas

B) Write short notes on any TWO of the following. 10

a) Pie diagram .
b) Multiple bar diagram.
c) Any five safety laboratory measures to be adapted by the students.
d) Characteristics of solution.

Q3 A] What is in-vivo gene therapy? Explain with its application in treatment of Cystic Fibrosis. 10

OR

A] Define transgenesis and Explain with reference to following methods of Transgenesis
i) Nuclear transplantation method ii) Embryonic stem cell method

B[Explain any TWO of the following: 10

a) Experiment of Cloning with reference to Dolly.
b) Application of DNA fingerprinting in forensic science.
c) Achievement of Biotechnology with respect to Medical field.
d) Recombinant Insulin.

Q .4 A] Give a detail account of any two of the following.. 20

a) Draw neat labelled diagram of Compound Microscope giving its function.
b) Write principle and Application of Electrophoresis.
c) Write principle and Application of Centrifuge.
d) Describe Thin layer chromatography as a separation technique.

Q 5 Write Short notes on any four of the following 20

a. SCID Gene therapy.
b. Simple bar diagram.
c. Applications of Biotechnology in the Animal Husbandry
d. Celsius temperature scale.
e. Application of P^H meter.
f. Application of colorimetry.

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