

**M.Sc. ZOOLOGY
SECOND SEMESTER
EVOLUTIONARY BIOLOGY
MSZ-205**

**SET
C**

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 1hr. 30 mins.

Full Marks: 35

(Objective)

Time: 15 mins.

Marks: 10

Choose the correct answer from the following:

1×10=10

- Among the following which does not belong to the Hardy-Weinberg Principle?
 - Frequency remained fixed through generations
 - Gene pool remains a constant
 - Allele frequency varies from species
 - Used algebraic equations
- Gene drift occurs when gene migration occurs.....
 - Spontaneously
 - By chance
 - Due to disaster
 - Slowly
- Species that occur in different geographical regions separated by barrier are:
 - Allopatry
 - Sympatry
 - Parapertic
 - Peripetric
- What did Darwin explain in his book "The descent of man"?
 - Ancestry of man
 - Evolution of organism
 - Origin of life
 - Production of man
- New world monkey evolved from.....
 - North and Middle East
 - South Africa
 - South and Middle America
 - Asia
- Who proposed that Chemical Evolution preceded Biological Evolution?
 - Oparin and Haldane
 - Pasteur and Miller
 - Darwin and Wallace
 - None of the above
- The experiment that simulated conditions thought to be present on the early earth:
 - Hershey-Chase experiment
 - Geiger-Marsden experiment
 - Miller-Urey experiment
 - Schiehallion experiment
- In Australia, marsupials and placental mammals have evolved to share many similar characteristics. This type of evolution may be referred to as:
 - Adaptive Radiation
 - Divergent Evolution
 - Cyclical Evolution
 - Convergent Evolution
- Theory of Natural selection dwells on:
 - Role of environment in evolution
 - Natural selection acting on favourable variations
 - Change in gene complex resulting in heritable variations
 - Inheritance of acquired characters

- l. According to neo Darwinism, natural selection operates through?
- a. Fighting between organisms
 - b. Variations
 - c. Killing weaker organisms
 - d. Differential reproduction

-- --- --

(Descriptive)

Time : 1 hr. 15 mins.

Marks : 25

[Answer question no.1 & any two (2) from the rest]

- | | |
|--|----|
| 1. Explain the concept of Chemogeny. | 5 |
| 2. Write a note on the factors affecting Hardy Weinberg Equilibrium. | 10 |
| 3. What is Lamarckism? Explain its merits and demerits. | 10 |
| 4. Write a note on the Evolutionary history of the genus <i>Homo</i> . | 10 |
| 5. What is Species concept? Explain the different types of Isolating mechanisms. | 10 |

= = *** = =