

**M.Sc. ZOOLOGY**  
**SECOND SEMESTER [SPECIAL REPEAT]**  
**EVOLUTIONARY BIOLOGY**  
**MSZ-205**

**SET**  
**A**

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 1hr. 30 mins.

Full Marks: 35

Time: 15 mins.

( Objective )

Marks: 10

Choose the correct answer from the following:

1×10=10

- 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
- According to neo Darwinism, natural selection operates through?
  - Fighting between organisms
  - Variations
  - Killing weaker organisms
  - Differential reproduction
- 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

10. New world monkey evolved from.....
- a. North and Middle East
  - b. South Africa
  - c. South and Middle America
  - d. Asia

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**( Descriptive )**

Time : 1 hr. 15 mins.

Marks : 25

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

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

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