

**M.Sc. ZOOLOGY**  
**THIRD SEMESTER (SPECIAL REPEAT)**  
**PARASITOLOGY, ECONOMIC ENTOMOLOGY & AQUATIC BIOLOGY**  
**MSZ-302**

(Use separate answer scripts for Objective & Descriptive)

**Duration : 3 hrs.**

Full Marks : 70

### ( PART-A : Objective )

Time : 20 min.

Marks : 20

*Choose the correct answer from the following:*

$$1 \times 20 = 20$$

- Primary foodplants of Eri silkworm is:
    - Mulbery
    - Castor and kesseru
  - Muga cocoons can be:
    - Reeled
    - Spinned
    - Reeled and spinned
  - Lac is produced by:
    - Male lac insect
    - Nymph stage
  - Rice grasshoppers lay their eggs in the:
    - Paddy leaf
    - Soil
    - Root
  - Teak defoliators feeds on:
    - Root
    - Bark
    - Leaf
    - Seed
  - In the erythrocyte, merozoites loses its internal organ, become round, form a vacuole in the centre, pushed the nucleus to the one pole. These parasites are called:
    - Young Trophozoite
    - Late Trophozoite
    - Merozoites
    - Hypnozoites
  - Mucocutaneous leishmaniasis* is caused by the:
    - L. tropica*
    - L. braziliensis*
    - L. aethiopica*
    - L. major*
  - The white blood cells respond by producing a number of signaling proteins, such as:
    - Paracrine and Autocrine
    - Paracrine and Interferons
    - Cytokines and Interferons
    - Cytokines and Paracrine
  - JEV is transmitted to humans through bites from infected mosquitoes of:
    - Aedes aegypti*
    - Anopheles culicifacies*
    - Anopheles fluvaltilis*
    - Culex tritaeniorhynchus*
  - As altitude increases, the DO level:
    - Decreases
    - Increases
    - Both
    - None



( PART-B : Descriptive )

Time : 2 hrs. 40 min.

Marks : 50

[ Answer question no.1 & any four (4) from the rest ]

1. Define salinity. Classify aquatic animals based on salinity. State the effect of salinity on the biotic community.  $1+4+5=10$
2. Describe the life cycle of Uzifly. Mention the damage done by uzifly on silk industry.  $8+2=10$
3. Write the life history and damage done by sal heartwood borer, *Hoplocyrambyx spinicornix*.  $7+3=10$
4. What is fish preservation? Mention two methods of salting in fishes and add a note on 'Canning' process used in fish preservation.  $1+6+3=10$
5. Describe the Exoerythrocytic and Erythrocytic stages of *Plasmodium* with suitable diagram.  $10$
6. Describe the Life cycle and Pathogenicity of *L. donovani* with suitable diagram.  $10$
7. Elucidate in detail about the pearl culture methods and pearl fishery resources in India citing suitable examples.  $10$
8. What do you mean by plankton? Classify plankton. Also brief a note on the importance.  $10$

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