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**1 SEM TDC ZOO M 1 (N/O)**

**2018**

( November )

**ZOOLOGY**

( Major )

Course : 101

Full Marks : 48

Pass Marks : 19/14

Time : 2 hours

*The figures in the margin indicate full marks  
for the questions*

( New Course )

**( Non-chordate Diversity, Systematics and  
Evolution )**

1. Fill in the blanks :

1×5=5

(a) Volutin granules are found in \_\_\_\_.

(b) \_\_\_\_ is the first phylum to illustrate the organ system.

(c) Minute scales are present in the wings of the insects of the order \_\_\_\_.

(d) Animals, that bear spines on their skin, are grouped as phylum \_\_\_\_.

(e) In the hierarchy of classification only \_\_\_\_ categories were used by Carolus Linnaeus.

( Turn Over )

( 2 )

2. Write short notes on any two of the following :  $3\frac{1}{2} \times 2 = 7$

- (a) Hierarchy of classification
- (b) Numerical taxonomy
- (c) Cladistic classification
- (d) Type concept in zoological nomenclature

3. What is cnidoblast? Write about the different types of cnidoblast and mode of action of it.

$1 + 4 + 4 = 9$

Or

Explain different modes of locomotion in Protozoa.

9

4. What is septal nephridium? Where is it located and what physiological function does it perform? Describe the structure of septal nephridium of *Pheretima*.

$1 + 1 + 1 + 6 = 9$

Or

Classify Nematelminthes up to order with examples.

9

5. Give an account of mouthparts in insects with suitable diagrams.

9

Or

Prepare a note on vision of arthropods.

9

6. What is ctenidia? Write about the different modes of respiration found in *Pila*.

$2 + 7 = 9$

Or

What is water vascular system? Discuss water vascular system in starfish.

$1 + 8 = 9$

( 3 )

75

( Old Course )

( Animal Diversity—I and Systematics )

**ANIMAL DIVERSITY—I (NON-CHORDATE)**

( Marks : 32 )

1. Fill in the blanks :

$1 \times 3 = 3$

- (a) In Protozoa, different species of the class \_\_\_\_\_ bear cilia.
- (b) *Fasciola* belongs to the class \_\_\_\_\_.
- (c) Animals having mesoglea in their body wall belong to the phylum \_\_\_\_\_.

2. Write on the following (any two) :

$4 \times 2 = 8$

- (a) General characters of Coelenterata
- (b) General characters of the class Crustacea
- (c) General characters of Mollusca
- (d) General characters of Echinoderm

3. What is polymorphism? Describe the polymorphism in coelenterates.

$1 + 6 = 7$

Or

Discuss about the skeletal materials in Porifera.

7

4. Describe the structure and function of septal nephridium of *Pheretima*. 7

Or

Write a note on excretion in Arthropoda. 7

5. What is torsion? Write about the shell diversity in Mollusca. 1+6=7

Or

Write about the affinities of echinoderm larva. 7

### SYSTEMATICS

( Marks : 16 )

6. Fill in the blanks : 1×2=2

(a) In hierarchy of classification \_\_\_\_\_ categories are commonly used.

(b) A group of individuals having interbreeding capacity is known as \_\_\_\_\_.

7. Why is zoological nomenclature needed? Write four specific rules of zoological nomenclature. 2+4=6

8. Write short notes on (any two) : 4×2=8

(a) Molecular taxonomy

(b) Cytotaxonomy

(c) Numerical taxonomy

(d) Linnaean hierarchy

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