



Instructions:

- Number in the right side indicates the marks of the question
- Marks for each question are same
- Answer any five (5) of the following questions.

1. a) Define Taxonomy. Mention the basic units of classification with suitable example. 1+4
b) Write the rules of nomenclature according to ICZN. 4
c) Write down the characteristics of largest phylum in animal kingdom. 5
2. a) Write the systematic position of prawn. 3
b) Briefly describe the life history and development of Prawn. 5
c) What are the general characteristics of *Labeo rohita*. 3
d) Write the economic and biotechnological importance of *Labeo rohita*. 3
3. a) Define ecosystem. What are the basic components of an ecosystem? 1+2
b) Briefly describe a pond ecosystem with examples. 6
c) State the ecological impact by changing the climate. 5
4. a) What do you mean by spermatogenesis? 7
b) Explain in brief the process of spermiogenesis. 5
c) Differentiate between spermatogenesis and oogenesis. 3
5. a) What is silk and honey? 5
b) Write down the life cycle of silk worm. 6
c) Write the economic importance of silk and honey. 3
6. a) What is disease, pathogen and parasites. 3
b) Points out the way of a disease study. 3
c) Describe the anthrax disease of cattle with causative agents, symptoms and control measures. 8

7. Write short notes on any FOUR of following:

- a) Tuberculosis
- b) Pebrine
- c) Food web
- d) Gill rot
- e) CJD

3.5+4=14

*delivered
submitted*

8. What is damped harmonic motion? Write down the differential form of damped harmonic motion.

- (b) Find out the average power dissipated in damped harmonic motion.
- (c) Show that the lower the value of damping (b), the higher the value of quality factor.

$$x = v_0 e^{-\gamma t} + \frac{1}{\gamma} g(1 - e^{-\gamma t})$$
$$v = v_0 + a t$$
$$a = \frac{v_0 \sin \theta}{\gamma}$$
$$v = v_0 + \frac{v_0 \sin \theta}{\gamma} t$$
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