

**LONG ANSWER TYPE**

Q1. Give an account of the structure of mitochondria. 5 marks  
OR

Give a detailed account of nuclear envelope

Q2. What is cardiac cycle? Describe the events that occur during joint diastole and atrial systole?  
OR

Describe the physiological functions and disorders of thyroid hormones. 5 marks

**SHORT ANSWER TYPE (3 marks each)**

- Q3. What is elephantiasis ? How is it caused?
- Q4. How do cilia and flagella differ?
- Q5. Draw a labelled diagram of a nerve cell .
- Q6. What are ammonotelic animals ? Give two. example.

**VERY SHORT ANSWER TYPE**

**2 marks each**

- Q7. Mention two aims of Zoological Park.
- Q8. Name the two components of blood.
- Q9. What is an Amphipathic lipid ? Cite an example.
- Q10. Give dental formula of man both for milk and permanent teeth.

**OBJECTIVE TYPE**

- Q11. a) Preen gland is found in
- |           |               |
|-----------|---------------|
| i) Pisces | iii) Reptilia |
| ii) Aves  | iv) Mammalia  |
- b) Chiasma represents the site of
- |                   |                     |
|-------------------|---------------------|
| i) Synapsis       | iii) Disjunction    |
| ii) Crossing Over | iv) Terminalization |
- c) Spindle fiber is made up of
- |                            |               |
|----------------------------|---------------|
| i) Tubulin                 | ii) humulin   |
| iii) Intermediate filament | iv) Flagellin |
- d) Brow spot of frog is associated with
- |                           |               |
|---------------------------|---------------|
| i) Temperature            | iii) Light    |
| ii) Intermediate filament | iv) flagellin |
- e) In earthworm, neurons are
- |            |                      |
|------------|----------------------|
| i) Sensory | iii) associated      |
| ii) Motor  | iv) All of the these |