

M.Sc. - I (Zoology) (NEP Pattern) Semester-I  
**NEP-82 / 01MSCZO02 - Core DSC Paper-II - General Physiology**

P. Pages : 1

Time : Three Hours



**GUG/S/25/15144**

Max. Marks : 80

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- Notes :
1. All questions are compulsory.
  2. All questions carry equal marks.
  3. Draw a well labelled diagram wherever necessary.

1. Write an essay on Neurotransmitters - chemical nature and mechanism of synaptic transmission. **16**

**OR**

Write notes on-

- a) Factors affecting enzyme action.
- b) Mechanism of O<sub>2</sub> transport.

2. Write an essay on Light producing organs and physiology of Bioluminescence. **16**

**OR**

Write notes on-

- a) Thermoregulation in poikilotherms
- b) Osmoregulation in Pisces

3. Describe the digestion and absorption of carbohydrate and proteins in the gastrointestinal tract. **16**

**OR**

Write notes on-

- a) Glycolysis
- b) Cholesterol metabolism

4. Give an account of hydromineral metabolism. **16**

**OR**

Write notes on-

- a) Mechanism of reflex action.
- b) Cerebrospinal fluid chemistry and functions.

5. Attempt the following- **16**

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|-----------------|-----------------------|
| a) Melanophore  | b) Membrane receptors |
| c) Heart valves | d) Tolerance          |

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