

[3 Hours]

[Total Marks: 100]

Please check whether you have got the right question paper.

- N.B:**
1. All questions are compulsory and carry equal marks.
  2. Figures to right indicates full marks.
  3. Draw neat labelled diagrams wherever necessary.
  4. Attempt the questions in order.

1. A) Fill in the blanks by choosing the correct options given below. **05**
- a) The circumvalution is also called as \_\_\_\_\_  
(Pinocytosis, Phagocytosis, Autolysis)
  - b) Pigeon is \_\_\_\_\_ which feeds on cereals, pulses and seeds.  
(Graminivores, Herbivores, Omnivores)
  - c) \_\_\_\_\_ is a metabolic process of breathing, transport of gases and oxidation of food leading to liberation of CO<sub>2</sub> and energy.
  - d) \_\_\_\_\_ acts a pacemaker of the heart.  
(AV node, SA Node, Purkinje fibers)
  - (e) \_\_\_\_\_ are those who lives inside the body of host.  
(Endoparasites, Principle host, Internal parasite)
- B) Match the columns I and II and rewrite **05**
- | Column I                              | Column II                      |
|---------------------------------------|--------------------------------|
| a) Platelets/mm <sup>3</sup> of blood | i. GVC                         |
| b) <i>Hydra</i>                       | ii. Ruminants                  |
| c) <i>Euglena</i>                     | iii. 2,50,000                  |
| d) Herbivores                         | iv. Bundle of His              |
| e) Heart of man                       | v. Longitudinal binary fission |
- C) State whether **True** or **False**. **05**
- a) Ectoparasites are those who lives outside the body of the host.
  - b) Protonephridia are found in planaria.
  - c) In man, 5000-9000 Leucocytes/mm<sup>3</sup> of blood are present.
  - d) *Labeo rabita* is a fresh water body fish commonly called as Robu.
  - e) Sinus venosus is the accessory chamber in the heart of man.
- D) Define following. **05**
- a) Autotrophs
  - b) Osmocoformers
  - c) Pulmonary chamber
  - d) Irritability
  - e) Sexual reproduction
2. A) Describe the digestive system of cockroach in detail. **10**
- OR**
- A) Describe the structure of uriniferous tubule.
- B) Explain any **Two** from the following. **10**

- a) Types of nutrition
- b) Ruminant stomach
- c) Ammonotelic animals
- d) Internal structure of kidney in man

3. A) Discuss the respiratory system in pigeon.

10

OR

A) Discuss blood as a fluid tissue.

B) Explain any **Two** from the following.

10

- a) Respiratory organs in spider.
- b) Double Lungs of frog
- c) Double circulation
- d) Haemolymph

4. A) Comment on types of neuron in detail.

10

OR

Comment on oogenesis in detail.

B) Explain any **Two** from the following.

10

- a) Action potential
- b) Sol-gel theory
- c) Binary fission
- d) Viviparity

5. Write short notes on **any Four** from the following.

20

- a) Nutritional apparatus in *Hydra*
  - b) Physiology of digestion in mouth
  - c) Transport of carbon dioxide
  - d) Heart of crocodile
  - e) Gemmule formation in sponges
  - f) Classification of fertilization
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