

**Q. P. Code: 19673****Time: 03 Hours****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 indicate full marks.
3. Draw neat labeled diagrams wherever necessary.
4. Attempt the questions in order.

**Q.1 A) Fill in the blanks by choosing the correct options given below 05**

- a) Gastrovascular cavity is present in -----  
(*Amoeba*, *Hydra*, Earthworm)
- b) Excretory structure of earthworm is -----  
(Nephron, Nueron, Nephridium)
- c) ----- is belongs to class arachnida.  
(Earthworm, Pigeon, Spider)
- d) Pace maker of heart of man is -----  
(S. A. Node, A. V. Node, Purkinje fibres)
- e) ----- are primitive neurons with cytoplasmic processes.  
(Apolar, Multipolar, Bipolar)

**B) Match the columns I and II and rewrite 05****Column I****Column II**

- |                      |                        |
|----------------------|------------------------|
| a) Respiration       | i. Gizzard             |
| b) Shrak             | ii. Flame cells        |
| c) <i>Amoeba</i>     | iii. Book lungs        |
| d) Excretion         | iv Two chambered heart |
| e) Crushing of food. | v. Sol gel theory      |

**C) State whether True or False 05**

- a) The heterotrophs are unable to manufacture their own food.
- b) *Amoeba* is multicellular organism with digestive tract.
- c) Lymph is clear watery fluid found in the lymphatic vessel.
- d) Caudal fin is the paired fin
- e) Growth phase is longer in oogenesis compared to the corresponding spermatogenesis.

**D) Define the following. 05**

- a) Parasitic nutrition.
- b) Haemopoiesis.
- c) Respiration.
- d) Irritability.
- e) Budding.

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- Q.2** A) Describe Gastrovascular cavity in *Hydra*. **10**  
 OR  
 A) Describe the physiology of urine formation in man.
- B) Explain any two from the following.** **10**  
 a) Types of nutrition.  
 b) Ruminant stomach.  
 c) Contractile vacuole in amoeba.  
 d) Principal nitrogenous excretory products.
- Q.3** A) Describe physiology of respiration in man. **10**  
 OR  
 A) Describe types of blood vascular system.
- B) Explain any two from the following.** **10**  
 a) Gills of *Labeo rohita*.  
 b) Respiratory organ of Pigeon.  
 c) Granulocytes and Agranulocytes.  
 d) Purkinje fibres.
- Q.4** A) Describe types of fins of fishes. **10**  
 OR  
 A) What is reproduction? Describe asexual reproduction. (Any three types)
- B) Explain any two from the following.** **10**  
 a) Nerve net in *Hydra*.  
 b) Types of neurons on the basis of structure.  
 c) Structure of human egg.  
 d) Oviparity, Viviparity and Ovoparity.
- Q.5** **Write short notes on any four** **20**  
 a) Food vacuole in *Amoeba*.  
 b) Heart of cockroach.  
 c) Tube feet in Starfish  
 d) Structure of sperm  
 e) Types of fertilization.