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**SARDAR PATEL UNIVERSITY**  
**B.Sc. (I Semester) Examination**  
**2016**

**11<sup>th</sup> April 2016 (Monday)**

**2.30 pm - 4.30 pm**

**US01CBIO 01(BIOLOGY)**

**(INVERTEBRATA, HEMICHORDATA AND APPLIED ZOOLOGY)**

NOTE: 1. Answers of all the questions (including MCQ) Should be written in the

Provided answer book only.

2. Figure to the right indicate the full marks of sub questions.

3. Draw a neat and labeled diagrams wherever necessary.

**Maximum Marks:70**

**Q-1**

**CHOOSE CORRECT ANSWERS:**

**10**

- 1 Mode of nutrition in Amoeba is :  
(a) Holophytic (b) Saprophytic (c) Mixotrophic (d) Holozoic
- 2 Hydra is ----- animal.  
(a) Acoelomate (b) Pseudocoelomate (c) Coelomate (d) None of these.
- 3 Clitellum in Pheretima includes segments :  
(a) 12, 13, 14. (b) 13, 14, 15. (c) 14, 15, 16. (d) 15, 16, 17.
- 4 Elephantiasis occurs due to :  
(a) male Aedes mosquito (b) Wuchereria bancrofti (c) Plasmodium vivax (d) male Culex mosquito
- 5 Male and female cockroach can be distinguished by:  
(a) Anal cerci (b) anal styles (c) mouth parts (d) compound eyes
- 6 Ootheca of cockroach is secreted by :  
(a) Mushroom gland (b) conglobate gland (c) collateral gland (d) genital pouch of female.
- 7 The larva of Balanoglossus is known as :  
(a) Tornaria (b) Amphiblastula (c) Parenchymula (d) Trochophore
- 8 In Balanoglossus excretion is done by :  
(a) proboscis gland (b) kidney (c) skin (d) nephridia
- 9 The body cavity of earthworm is:  
(a) pseudocoelom (b) acoelom (c) haemocoel (d) true coelom
- 10 Respiratory pigment present in cockroach is:  
(a) haemoglobin (b) haemocyanin (c) both (d) none

<b>Q-2</b>	<b>ANSWER IN SHORT:(ANY TEN)</b>	<b>20</b>
1	What is chemotaxis in Amoeba.	
2	What is volvent? Write it's functions .	
3	Write about contractile vacuole in amoeba.	
4	Write any three functions of body wall of an Earthworm.	
5	Draw a neat and labeled diagram of ventral view of an earthworm showing segments no. 13 to 20.	
6	What is clitellum?	
7	List the name of hormones involved in insect metamorphosis.	
8	List the name of mouthparts in cockroach.	
9	What is intima? Write it's significance.	
10	What is ciliary feeding?	
11	Write about harmful molluscs.	
12	Give the name of parts which forms the water vascular system in sea-star.	
<b>Q-3</b>	<b>A</b> Explain sol-gel theory of locomotion in Amoeba proteus.	<b>07</b>
	<b>B</b> Write a note on Glutinants.	<b>03</b>
	<b>OR</b>	
<b>Q-3</b>	<b>A</b> Write a brief account of stinging cells.	<b>07</b>
	<b>B</b> Draw neat & labelled diagram of Amoeba proteus.	<b>03</b>
<b>Q-4</b>	<b>A</b> Describe the digestive system of an Earthworm.	<b>07</b>
	<b>B</b> Write a note on pharyngeal nephridia.	<b>03</b>
	<b>OR</b>	
<b>Q-4</b>	<b>A</b> Describe coelom and coelomic fluid in an Earthworm.	<b>07</b>
	<b>B</b> Write a note on external morphology of Filarial worm.	<b>03</b>
<b>Q-5</b>	Describe the excretory system & physiology of excretion in Cockroach.	<b>10</b>
	<b>OR</b>	
<b>Q-5</b>	Describe the lacunar circulatory system of Cockroach.	<b>10</b>
<b>Q-6</b>	<b>A</b> Describe respiration in Balanoglossus.	<b>05</b>
	<b>B</b> Write a note on Beneficial molluscs.	<b>05</b>
	<b>OR</b>	
<b>Q-6</b>	<b>A</b> Explain external morphology of Balanoglossus.	<b>05</b>
	<b>B</b> How the locomotion is performed in sea-star.	<b>05</b>