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**SUBJECT CODE NO:- B-2171**  
**FACULTY OF SCIENCE AND TECHNOLOGY**  
**B.Sc. F.Y (Sem.-II) Examination OCT/NOV 2019**  
**Zoology Paper-IV**  
**Arthropoda to Echinodermata and Protochordata**

[Time: 1:30 Hours]

[Max.Marks:50]

- N.B** i) Attempt all questions.  
 ii) Illustrate your answer with suitable labeled diagram.

**Q.1** Describe in details Female reproductive system of cockroach 20

**OR**

Give an account of the nervous system of pila

**Q.2** Explain in details external features of Amphioxus. 20

**OR**

Write short notes on (any four)

- a. Madreporite
- b. Abdominal appendages of prawn
- c. Tube feet
- d. General characters of Herdmania
- e. Oral view of starfish
- f. Statocyst

**Q.3** Select and write correct answer from the given alternatives in each sub questions : 10

1. The sex of prawn can be identified externally by observing these appendages.
  - a) II –chelate legs
  - b) I- Maxillipedes
  - c) I- abdominal appendage
  - d) II – nonchelate leg
2. Ootheca of cockroach is secreted by :
  - a) Mashroom gland
  - b) Conglobate gland
  - c) Collateral gland
  - d) Genital pouch of female
3. How many teeth are found in a row of radula
 

a) Seven	b) Five	c) Nine	d) Eleven
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4. Function of pedicellariae :
  - a) Capture prey
  - b) Capture and removal food
  - c) Capture, removal debris and minute organisms
  - d) Help in respiration.
  
5. Osphradium is :
  - a) Olfactory
  - b) Gustatory
  - c) Tangoreceptor
  - d) Photoreceptor
  
6. Stomodaeal valve in cockroach is situated between :
  - a) Crop and Gizzard
  - b) Gizzard and Mesenteron
  - c) Mesenteron and ileum
  - d) Rectum and anus
  
7. The total no. of appendages present in prawn is :
  - a) Sixteen
  - b) Nineteen
  - c) Seven
  - d) Thirteen
  
8. Pila is :
  - a) Monoecious
  - b) Dioecious
  - c) Hermaphrodite
  - d) None
  
9. Reproduction in Hemichordates is mainly :
  - a) Asexual
  - b) By budding
  - c) Sexual
  - d) Regeneration
  
10. Which of the following term is not used for Herdmania
  - a) Undapasi
  - b) Mulaikanna
  - c) Sea squirt
  - d) Sea skirt.