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**TECHNICAL UNIVERSITY OF MOMBASA**  
**FACULTY OF APPLIED AND HEALTH SCIENCES**  
**DEPARTMENT OF ENVIRONMENT & HEALTH SCIENCES**  
**UNIVERSITY EXAMINATION FOR:**  
**BACHELOR OF SCIENCE IN FISHERIES AND OCEANOGRAPHY**  
**BSFO 16S/YEAR 2/ SEMESTER 1**  
**AFO 4205: AQUATIC INVERTEBRATE ZOOLOGY**

**SPECIAL/ SUPPLIMENTARY EXAMINATIONS**  
**SERIES: SEPTEMBER 2018**  
**TIME: 2 HOURS**

*Instructions to Candidates*

This paper consists of FIVE questions

Answer question ONE (COMPULSORY) and any other TWO questions.

*This paper consists of two printed pages.*

*Mobile phones are NOT allowed in the examination room*

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**QUESTION ONE. (30 MARKS)**

- a) Describe the following terms
- i. Spicules (2marks)
  - ii. Osculum (2marks)
- b) Differentiate between the polyploid and medusoid body forms (4marks)
- c) Which are the THREE factors that affect sponge habitat? (3marks)
- d) Outline THREE types of diversity (3marks)
- e) Name the THREE types of canal system of sponges. (3marks)
- f) Name any FOUR traits used to classify fresh water organisms (4marks)
- g) Describe feed and feeding in spinucules. (5marks)
- h)
  - i) What are choanocytes? (2marks)
  - ii) Why are choanocytes important for sponges? (2marks)

**QUESTION TWO. (20 MARKS)**

Entoprocts are marine organisms that are tiny and sessile but are found in all spheres from the poles to the tropics.

- a. Describe their body form. (10marks)
- b. Discuss the nervous, respiratory, excretory and reproductive systems in entoprocts. (10marks)

**QUESTION THREE. (20 MARKS)**

Discuss the distinguishing features of crustaceans. (20marks)

**QUESTION FOUR. (20 MARKS)**

Discuss feed and feeding in ctenophores. (20marks)

**QUESTION FIVE. (20 MARKS)**

Rotifers have a great variety of shapes. Describe their body form. (20marks)