



PAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

FACULTY OF HEALTH AND APPLIED SCIENCES

DEPARTMENT OF NATURAL AND APPLIED SCIENCES

QUALIFICATION: BACHELOR OF SCIENCE	
QUALIFICATION CODE: 07BOSC	LEVEL: 6
COURSE CODE: EBD601S	COURSE NAME: EVOLUTION AND BIOLOGICAL DIVERSITY
SESSION: JULY 2019	PAPER: THEORY
DURATION: 3 HOURS	MARKS: 100

SUPPLEMENTARY / SECOND OPPORTUNITY EXAMINATION QUESTION PAPER	
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MODERATOR:	MR MUNYARADZI ZIVUKU

INSTRUCTIONS
<ol style="list-style-type: none">1. Write clearly and neatly2. Number the answers clearly3. All written work MUST be done in blue or black ink4. No books, notes and other additional aids are allowed5. Mark all answers clearly with their respective question numbers

PERMISSIBLE MATERIALS

None

THIS QUESTION PAPER CONSISTS OF 5 PAGES
(Including this front page)

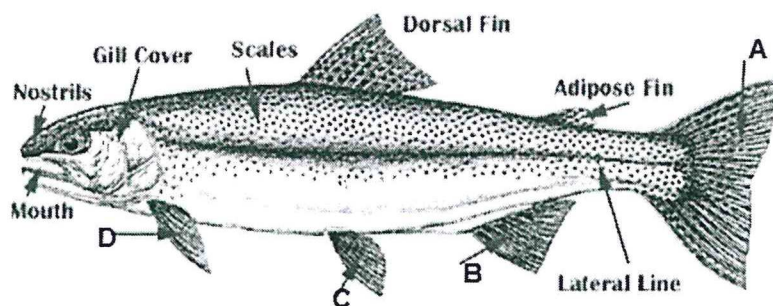
QUESTION 1:

Multiple choices

[5]

- 1.1 Which of the following is *not* true of the duck-billed platypus? (1)
a) Classified as a marsupial
b) Lays eggs
c) Has a notochord at embryo stage
d) Has vertebral column
- 1.2 In a feather, the rachis is the _____. (1)
a) Soft feathers at the bottom of a feather
b) The stiff hair-like parts of a feather
c) The central shaft of a feather
d) None of the above
- 1.3 Turtles and Tortoises belong to the ORDER; (1)
a) Squamata
b) Crocodilia
c) Chelonia
d) Rynchocephalia
- 1.4 A frog croaks by _____. (1)
a) Rapidly rubbing its hind legs together
b) Brushing its forelegs against its vocal sacs
c) Moving air back and forth between its mouth and lungs
d) Forcing air out of its nostrils under positive pressure
- 1.5 Identify the structure of fins labelled 'C' in the diagram of the fish shown below. (1)
a) Dorsal fin(s)
b) Caudal fin
c) Pectoral fins
d) Pelvic fins

Anatomy of a Fish



QUESTION 2:

Define the following terms:

[5]

- 2.1 Spicule (1)
- 2.2 Mastax (1)
- 2.3 Ctenes (1)
- 2.4 Adductor (1)
- 2.5 Brood patch (1)

QUESTION 3:

Distinguish between the pairs of the following terms:

[10]

- 3.1 Primary host; intermediate host (2)
- 3.2 Osculum; spongocoel (2)
- 3.3 Swimmeret; spinnerets (2)
- 3.4 Crocodile; alligator (2)
- 3.5 Lancelet; tunicate (2)

QUESTION 4:

One-word answers

[5]

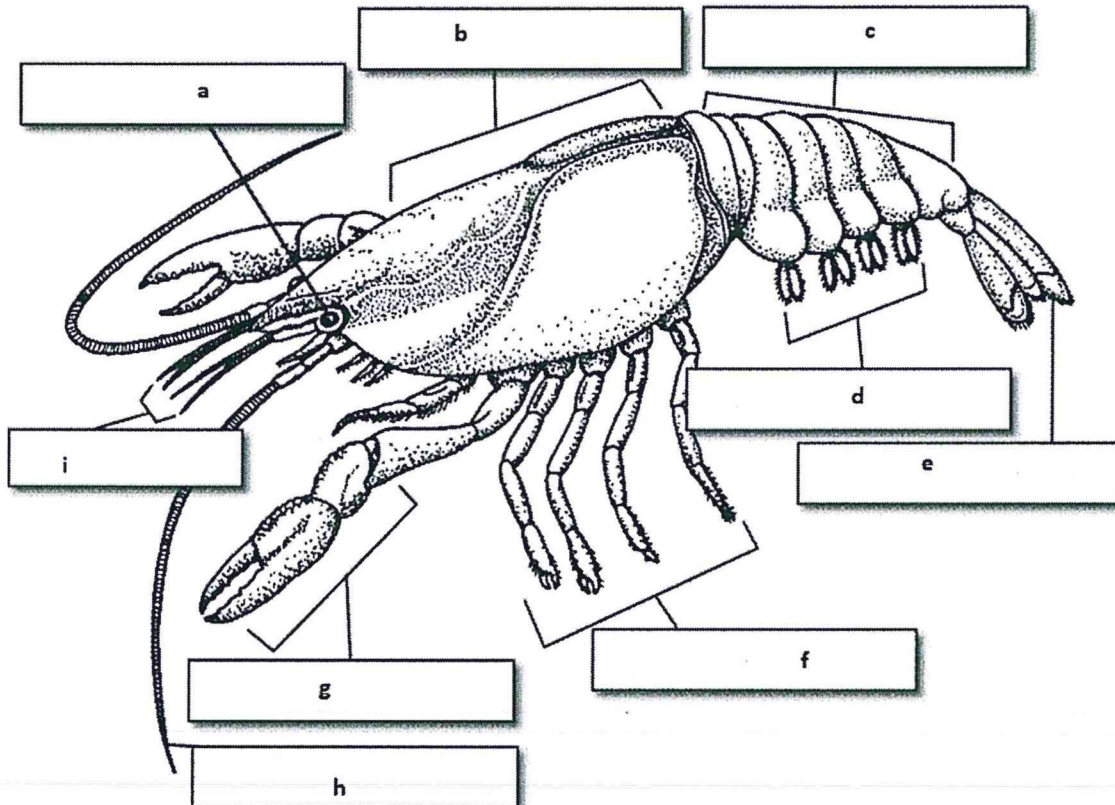
- 4.1 What is the common name for the Phylum Annelids? (1)
- 4.2 What is the most intelligent mollusk? (1)
- 4.3 Name the phylum to which Star fish and Sea urchin belong to. (1)
- 4.4 Which fin(s) keep the fish upright and used for defense? (1)
- 4.5 Name one place where you would expect to find mammals but not reptiles. (1)

QUESTION 5:

Structures and functions

[11]

- 5.1 Draw the structure of the Aves digestive system, label its part and describe the function of each. (6)
- 5.2 Identify the structures labelled *a-i* in the diagram of a lobster shown below. (5)



QUESTION 6:

Short answers questions

[12]

- 6.1 How does a bony fish adjust its buoyancy? (1)
- 6.2 Give four examples of cnidarian. (2)
- 6.3 Name the different classes of annelids with one example each. (3)
- 6.4 Compare and contrast the poly and medusa forms of cnidarians. (2)
- 6.5 You are a chordate, yet you lack most of the main derived characters of chordates. Explain. (4)

QUESTION 7:

Long answer questions

[22]

- 7.1 Write the general characteristic of the subphylum arachnid. (6)
- 7.2 Explain the general characteristic of Chelonia in reptils with example. (6)
- 7.3 Describe the principle characteristic of Class Gastropoda. (10)

QUESTION 8:

Essay questions

[30]

- 8.1 Describe the Structure & Function of Starfish. (15)
- 8.2 Explain the main characteristics of mammals. (15)

THE END