

**Insects**

1. Which one of the following is NOT a characteristic of insects?
  - A. Two pairs of antennae
  - B. Jointed legs
  - C. External skeleton
  - D. Body divided into head, thorax and abdomen.
2. Which one of the following functions of the skeleton applies only to insects?
  - A. Providing camouflage.
  - B. Protection
  - C. Leavers of locomotion.
  - D. Determining body shape exactly.
3. Insects in the dry areas conserve water by passing waste form of
  - A. Urea
  - B. Uric acid crystals.
  - C. Ammonia gas
  - D. Urine
4. Which one of the following groups of animals possesses an open circulatory system?
  - A. Amphibians
  - B. Insects
  - C. Mammals
  - D. Fish
5. Which of the following groups of insects all have similar feeding habits?
  - A. Bee, mosquito, caterpillar.
  - B. Housefly, cockroach, praying mantis.
  - C. Tsetsefly, housefly, caterpillar.
  - D. Bee, butterfly, bedbug.
6. Which one of these insects does not lay eggs in its lifecycle?
  - A. Bee
  - B. Grasshopper
  - C. Tsetse fly
  - D. Housefly
7. Which of these are characteristic of all insects?
  - A. Complete metamorphosis and possession of three pairs of jointed legs.
  - B. Possession of three pairs of jointed legs and body divided into three main parts.
  - C. Possession of one or two pairs of wings and having three pairs of jointed legs.
  - D. Complete metamorphosis and body divided into three main parts.
8. The following are characteristics of insects:
  - (i) They undergo complete metamorphosis.
  - (ii) They have 1 or 2 pairs of wings.
  - (iii) They have 3 pairs of jointed legs.
  - (iv) Their bodies are divided into 3 main parts.
  - (v) They posses exoskeletons.

Which of them are common to all insects?

- A. (iii), (iv) and (v)
- B. (i), (ii) and (iii)
- C. (i), (iii) and (v)

- D. (iii), (ii) and (v)
9. The structure in insects that serve as respiratory surfaced for gaseous exchange are
- trachea
  - bronchioles
  - tranchioles
  - spiracles.
10. Which one of the following is a characteristic of insects only?
- Exoskeleton
  - Jointed legs
  - Two pairs of wings
  - Three body divisions
11. Which one of the following may not be used for classifying insects?
- Mouth parts.
  - Feeding habits.
  - Structure of legs.
  - type of eyes.
12. A male cockroach is different from the female cockroach by having
- styles
  - circus
  - longer antennae
  - larger abdomen
13. The female mosquito sucks blood because
- it requires iron to make hemoglobin.
  - it needs to feed on liquid food at around 37°C.
  - it obtains materials essential for egg production.
  - Its mouth parts are designed to pierce the skin of mammals.
14. A mosquito larva breathes by means of
- spiracles
  - gills
  - segments
  - nostril.
15. Table 3 below gives feeding habits of aedis mosquito on human blood meal from 6pm to 12 midnight.

Table 3

Time of feeding	6pm	7pm	8 pm	9 pm	10pm	11pm	12 midnight
Number of mosquito biting	0	1	1	3	25	24	16
Volume of blood in the gut of mosquito (ml)	0	0.001	0.002	0.05	0.5	0.4	0.08

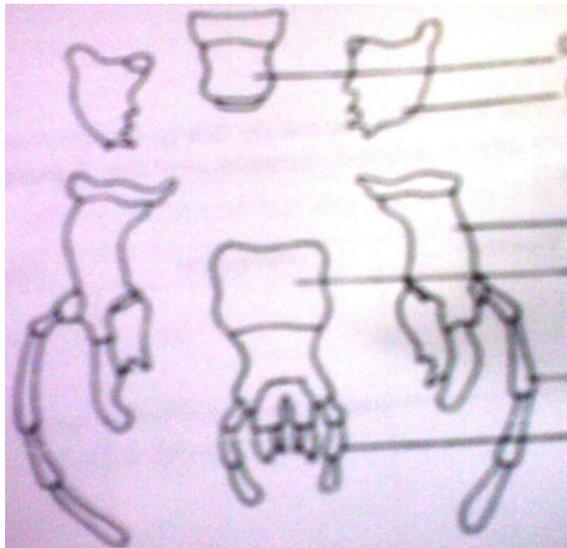
- The best conclusion on aedis feeding habit from table 3 is that
- aedis is active at 10pm to midnight, when people are sleeping.
  - aedis is active only after midnight.
  - mosquito feeds only when blood is hot.
  - mosquito feeds on blood of sick people.

16. Which one of the following would help in reducing the number of mosquito larvae?
- A. Increase in the number of microscopic algae.
  - B. Increase in the number of larger fish.
  - C. Increase in the number of crocodiles.
  - D. Decrease in the number of small fish.
17. Biological control as a method of prevention of malaria would include
- A. spraying oil on the surface of stagnant water.
  - B. Spraying of insecticides on the mosquitoes.
  - C. Introducing fish in water bodies.
  - D. Drainage of stagnant water.
18. Which one of the following parasites is transmitted by Anopheles mosquito?
- A. Filaria worm.
  - B. Trypanosome.
  - C. Plasmodium.
  - D. Schistoma.
19. Which one of the following cannot be used in classifying insects
- A. nature of mouth parts
  - B. presence of wings
  - C. number of body division
  - D. length of antennae

### Section C questions

1. (a) Give six features which are common to adult insects.  
(b) (i) What is understood by the term metamorphosis?  
(ii) State and explain the types of metamorphosis  
(ii) With the aid of a labeled diagram, give an account of the life cycle of a cockroach.
2. (a) Describe the life cycle of a housefly.  
(b) What is the economic importance of a housefly?  
(c) How would you minimize the spread of houseflies in a home?
3. State the economic importance of insects giving an example in each case
4. (a) State the vector and parasite responsible for malaria  
(b) How can the spread of malaria be controlled in Uganda
5. (a) State the feature of a grass hopper that show that it is an insect  
(b) Describe the life cycle of (i) a grass hopper  
(ii) an anopheles mosquito

6. The figure below shows mouth parts of an insect separated from each other. Study it and answer the questions below.



- (a) Suggest the diet of the insect from which the mouth parts were obtained  
 (b) Name the parts (i) to (vi)  
 (c) State the functions of the parts labeled  
       (ii)   (v)  
 (d) Give two examples of insects with such mouth parts
7. The table below shows characteristic features of insects. Study and answer the questions below

INSECT	WINGS	Head	LEGS	ABDOMEN
P	No wings	Has mandibles Short antennae	Short	Short abdomen
Q	Two wings Transparent membranous	Long antennae Hairy antennae Has a long proboscis	Long legs Slender legs	Long Narrow
R	Four wings Scaly wings	Long antennae Club shaped antennae Has a proboscis that is coiled	Glandular pads Has claws	Long Slightly narrow Covered by hair
S	Two wings Membranous wings	One pair Short antennae Has a blunt proboscis	Has claws Has glandular pads	Has broad abdomen
T	Four wings Thick fore wings	A pair of Long antennae Has mandibles	Posses claws Has an arolium Has spines	<ul style="list-style-type: none"> <li>• Has circi</li> <li>• Flattened abdomen</li> <li>• Broad abdomen</li> </ul>

- (a) Use the information above to draw a flow chart  
 (b) Construct a dichotomous key of the insects using the above features