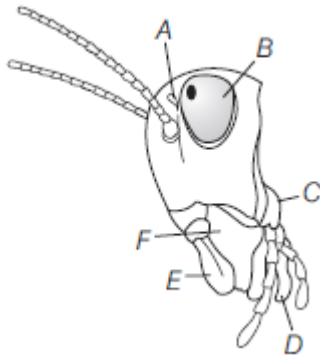


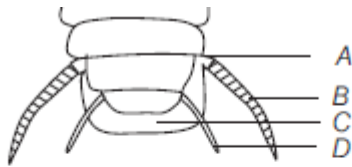
1. Which of the following statements are correct about the forewings in cockroach?
(a) They are mesothoracic
(b) They are opaque, dark and leathery and cover hindwing when at rest
(c) They are not used in flight
(d) All
2. The abdomen in both male and female cockroach consists of
(a) 10 segments (b) 8 segments
(c) 12 segments (d) 18 segments
3. In male cockroach, genital pouch / chamber lies at the hind end of abdomen bounded dorsally by _____ and _____ and ventrally by _____ sternum
(a) 9th, 10th, 11th (b) 9th, 10th, 12th
(c) 8th, 9th, 13th (d) 9th, 10th, 9th
4. The hepatic caecae in cockroach
(a) Store excess food (b) Produce digestive enzymes
(c) Absorb fully digested food (d) Are helpful in egestion
5. The position of heart in cockroach is
(a) Lateral (b) Dorsal
(c) Ventral (d) Mid-dorsal line of thorax and abdomen
6. Which of the following is false about the heart of cockroach?
(a) It is differentiated into funnel shaped chambers with ostia on either side
(b) It is myogenic
(c) Blood from sinuses enter the heart through ostia and is pumped anteriorly to sinuses again
(d) Alary muscles are related to heart
7. The respiratory system in the body of cockroach consists of
(a) Bronchi (b) Bronchioles
(c) Network of trachea (d) Haemocyanin
8. Malpighian tubules remove excretory products from -
(a) Haemolymph (b) Gut
(c) Both a and b (d) Kidney
9. Go through the paragraph - "It is lined by glandular and ciliated cells. It absorbs nitrogenous waste products from haemocoel and convert them into uric acid which is excreted out through the hindgut". The above functions are related to which of the following structures in cockroach?
(a) Trachea (b) Hepatic caecae
(c) Terga (d) Malpighian tubules
10. The nervous system in cockroach
(a) Is spread throughout the body
(b) Is represented by segmentally arranged ganglia and ventral nerve cord
(c) Both a and b are correct
(d) Consists of supra-oesophageal ganglia in head and dorsal nerve cord
11. Which of the following is correct of mosaic vision in cockroach?
(a) With the help of several ommatidia, a cockroach receives several images of an object
(b) It is with more sensitivity but has less resolution

- (c) Being common during night, it is called nocturnal vision also
(d) All
12. In male cockroach, a pair of testis are located one on each lateral side in the abdominal segment
(a) 6th - 10th (b) 6th - 8th (c) 4th - 6th (d) 10th - 12th
13. The ovaries of cockroach are located in the abdominal segments
(a) 2 - 6 (b) 5 - 6 (c) 1 - 2 (d) 5 - 8
14. Zoological name of cockroach is
(a) *Glossina palpalis* (b) *Periplaneta americana*
(c) *Musca nebulosa* (d) *Apis indica*
15. Tongue like structure in *Periplaneta* is
(a) Maxilla (b) Hypopharynx
(c) Labium (d) Labrum
16. Cockroach and other insects have exoskeleton made up of
(a) Keratin (b) Spongin
(c) Chitin (d) Cuticle
17. Mouth parts of cockroach are suited for
(a) Piercing (b) Absorbing
(c) Cutting & chewing (d) Drinking
18. Heart of cockroach is
(a) Four chambered (b) Vertral to gut
(c) Longitudinal and beaded (d) Three chambered
19. In cockroach which is helpful in sexual attraction?
(a) Hormone ecdyson (b) Pheromone
(c) Juvenile hormone (d) Anal cerci
20. Cockroaches are
(a) diurnal and carnivores (b) nocturnal and herbivores
(c) diurnal and herbivores (d) nocturnal and omnivores
21. The mouthparts of a cockroach are said to be
(a) absorbing type
(b) biting and absorbing type
(c) biting and chewing type
(d) biting and sucking type
22. The given figure is related to the head region of cockroach. Identify A to F with the correct combination of options.



- (a) A–Maxilla, B–Compound eye, C–Ocellus, D–Labrum, E–Labium, F–Mandible
 (b) A–Ocellus, B–Compound eye, C–Maxilla, D–Labium, E–Labrum, F–Mandible
 (c) A–Ocellus, B–Compound eye, C–Maxilla, D–Labrum, E–Labium, F–Mandible
 (d) A–Mandible, B–Compound eye, C–Maxilla, D–Ocellus, E–Labrum, F–Labium

23. The given figure represents posterior region of male cockroach. Identify the parts labelled as A, B, C and D.



- | A | B | C | D |
|-----------------|-------------|-------------|-------------|
| (a) 9th sternum | Anal style | 10th tergum | Anal cercus |
| (b) Anal style | Anal cercus | 10th tergum | 9th sternum |
| (c) 9th sternum | Anal cercus | 10th tergum | Anal style |
| (d) 9th sternum | Anal style | 10th tergum | Anal cercus |

24. Which of the following parts of the alimentary canal of cockroach is used for storing food?

- (a) Crop (b) Gastric caeca
 (c) Gizzard (d) Oesophagus

25. Select the correct sequence of organs in the alimentary canal of cockroach starting from mouth **NEET 2019**

- (a) Pharynx→ Oesophagus→ Gizzard→ Crop→ Ileum → Colon→ Rectum
 (b) Pharynx→ Oesophagus→ Gizzard→ Ileum→ Crop → Colon→ Rectum
 (c) Pharynx→ Oesophagus→ Ileum→ Crop→ Gizzard → Colon→ Rectum
 (d) Pharynx→ Oesophagus→ Crop→ Gizzard→ Ileum→ Colon→ Rectum

26. The number of spiracles present in cockroaches are

- (a) 9 pairs (b) 10 pairs
 (c) 12 pairs (d) 14 pairs

27. The vision of cockroach is

- (a) more sensitive with less resolution
 (b) very poor during night
 (c) less sensitive with high resolution
 (d) high resolution during night

28. In male cockroaches, sperms are stored in which part of the reproductive system? **NEET 2016**

- (a) Seminal vesicles (b) Mushroom glands
 (c) Testes (d) Vas deferens

29. In a cockroach, spermatheca is present in the

- (a) 7th segment (b) 6th segment
 (c) 5th segment (d) 4th segment

30. The development of *Periplaneta americana* is

- (a) holometabolous
 (b) paurometabolous
 (c) ametabolous
 (d) hemimetabolous

1. (d)
2. (a)
3. (d)
4. (b)
5. (d)
6. (b)
7. (c)
8. (a)
9. (d)
10. (c)
11. (d)
12. (c)
13. (a)
14. (b)
15. (b)
16. (c)
17. (c)
18. (c)
19. (b)
20. (d)
21. (c) The mouthparts of a cockroach are of biting and chewing type because they are used for masticating the food. The mouthparts consist of labrum, a pair of mandibles, a pair of maxillae and a labium. Hypopharynx which acts as the tongue, lies within the cavity enclosed by the mouthparts.
22. (b)
23. (c)
24. (a) Crop is a sac-like structure present in the alimentary canal of cockroaches and is used for storing food.
25. (d) The correct sequence of organs in the alimentary canal of cockroach starting from mouth is Pharynx® Oesophagus® Crop® Gizzard® Ileum® Colon® Rectum. In a cockroach, the mouth opens into the short tubular pharynx which leads to the narrow tubular passage, oesophagus. This opens into the sac-like crop which stores the food. It is followed by gizzard. Both crop and gizzard are structures of the foregut. At the junction of foregut and midgut hepatic caeca is present. Malpighian tubules occur at the junction of midgut and hindgut. The food then moves into the hindgut, which is differentiated to ileum, colon and rectum.
26. (b)
27. (a) Cockroach vision is very sensitive, but provides less resolution. Such vision is called mosaic vision and is common during night (hence also termed as nocturnal vision).
28. (a) In male cockroaches, sperms are stored in the seminal vesicles of the reproductive system. These are small sacs present on the ventral surface of the anterior of the ejaculatory duct. The seminal vesicles in male and the seminal receptacles in females are the organs of sperm storage in cockroaches.
29. (b) In the reproductive system of a female cockroach, a pair of spermatheca is present in the 6th segment, which opens into the genital pouch.
30. (b) The development of *Periplaneta americana* is paurometabolous, which means that in cockroaches, development is through nymphal stage. The nymphs look very much like adults and grow by moulting about 13 times to reach the adult form.