

# Yakeen NEET 2.0 2026

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## Structural Organization in Animals

DPP: 11

**Q1** Read the following statements (I-IV).

- I. Cockroaches are brown or black bodied animals that are included in class insecta of phylum arthropoda.
- II. Males bear a pair of short, thread like anal styles which are absent in females.
- III. Heart of cockroach consists of elongated muscular tube lying along mid dorsal line of thorax and abdomen.
- IV. The nymph grows by moulting about 13 times to reach the adult form.

Which of the above statements are **correct**?

- (A) I, II and III only
- (B) II, III and IV only
- (C) I and II only
- (D) I, II, III and IV only

**Q2 Statement I:** The cockroach has a segmented body divided into three distinct regions, namely the head, thorax, and abdomen.

**Statement II:** Each segment of the cockroach's body contains hardened plates called arthroal membrane.

- (A) Statement I and Statement II both are correct.
- (B) Statement I is correct but Statement II is incorrect.
- (C) Statement I is incorrect but Statement II is correct.
- (D) Statement I and Statement II both are incorrect.

**Q3** Read the following statements w.r.t. *Periplaneta americana*.

- (a) Entire body is covered by a hard calcareous exoskeleton.
- (b) Head is triangular and lies anteriorly at right angle to the longitudinal axis of body.
- (c) A pair of walking legs arise from each thoracic segment.
- (d) The abdomen in both male and female consists 10 segments.

How many of the above statement are **correct**?

- (A) One
- (B) Two
- (C) Three
- (D) Four

**Q4** Read the following statements w.r.t. *Periplaneta americana*.

- (a) Entire body is covered by a hard calcareous exoskeleton.
- (b) Head is triangular and lies anteriorly at right angle to the longitudinal axis of body.
- (c) A pair of walking legs arise from each thoracic segment.
- (d) The abdomen in both male and female consists 10 segments.

How many of the given statements are **correct**?

- (A) One
- (B) Two
- (C) Three
- (D) Four

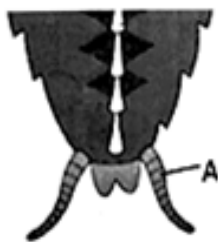
**Q5** Which of the following is the **correct** statement of the structure labelled 'A' in the diagram?



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- (A) A pair of anal styles absent in females.  
 (B) A pair of anal cerci, arise from 10<sup>th</sup> segment present in both the sexes.  
 (C) Phallomere, external genitalia of male.  
 (D) Ovipositor in female.

**Q6** Read the following statements w.r.t. *Periplaneta americana*.

- (a) Entire body is covered by a hard calcareous exoskeleton.  
 (b) Head is triangular and lies anteriorly at right angle to the longitudinal axis of body.  
 (c) A pair of walking legs arise from each thoracic segment.  
 (d) The abdomen in both male and female consists 10 segments.

How many of the given statements are **correct**?

- (A) One (B) Two  
 (C) Three (D) Four

**Q7** Choose the **correct** statement from the following.

- (A) The mouth parts of cockroach consist of labrum (lower lip), labium (upper lip) and mandible, maxillae.  
 (B) Only prothoracic and mesothoracic segments of cockroach possess walking legs.  
 (C) Forewings (Prothoracic) called tegmina.  
 (D) Hind wings are transparent and membranous.

**Q8** Match the **List-I** and **List-II**:

List-I		List-II	
A.	Exoskeleton	P.	Maxillary palps
B.	Sense organ	Q.	Phallomeres
C.	Gonapophysis	R.	Sclerites
D.	Forewings	S.	Tegmina

Choose the **correct** answer from the options given below:

- (A) A-(R); B-(P); C-(Q); D-(S)  
 (B) A-(S); B-(P); C-(Q); D-(R)  
 (C) A-(R); B-(P); C-(S); D-(Q)  
 (D) A-(S); B-(R); C-(P); D-(Q)

**Q9** Which of the following features is **not** related to cockroach?

- (A) Body divisible into head, thorax and abdomen.  
 (B) Two pairs of wings are found.  
 (C) Head lies posteriorly at right angles to the longitudinal body axis.  
 (D) Presence of anal cerci in both sexes.

**Q10** Find the **incorrect** statement from the following.

- (A) Only male cockroaches bear a pair of short, thread-like anal styles.  
 (B) Anterior part of genital pouch in female cockroaches contains gonopore, spermathecal pores and collateral glands.  
 (C) In female cockroaches, the 7th sternum is boat shaped.  
 (D) In cockroaches, each thoracic segment bears a pair of wings.

**Q11** Find the incorrect statement.

- (A) Cockroaches belong to the class Insecta of phylum Arthropoda.  
 (B) Body is divided into three distinct region: head, thorax and abdomen in Cockroaches.  
 (C) Triangular head lies anteriorly at acute angles to the longitudinal body axis in *P. americana*.  
 (D)



In frog, bile emulsifies fat and pancreatic juices, digest carbohydrates and proteins.

**Q12** Which of the following is incorrect for forewings of cockroach?

- (A) Also called mesothoracic wings or tegmina
- (B) Opaque, dark and leathery
- (C) Cover the hind wings when at rest
- (D) Used in flight

**Q13** In cockroach, labium, labrum and hypopharynx are commonly called:

- (A) upper lip, lower lip and crop, respectively.
- (B) upper lip, lower lip and tongue, respectively.
- (C) lower lip, upper lip and tongue, respectively.
- (D) lower lip, upper lip and jaw, respectively.

**Q14** Head of cockroach is formed by the fusion of;

- (A) six segments and triangular in shape.
- (B) ten segments and trigonal in shape.
- (C) eleven segments and rectangular in shape.
- (D) three segments and tetragonal in shape.

**Q15** Tegmina in cockroach, arises from:

- (A) prothorax and mesothorax.
- (B) prothorax.

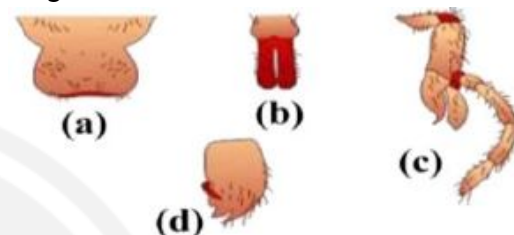
(C) mesothorax.

(D) metathorax.

**Q16** The first pair of wings in cockroach arises from \_\_\_\_\_ and the second pair from \_\_\_\_\_.

- (A) prothorax, mesothorax
- (B) mesothorax, metathorax
- (C) metathorax, mesothorax
- (D) mesothorax, prothorax

**Q17** Which one is the **correct** option for the given diagram?



- (A) a-Labrum, b-Maxilla, c-Hypopharynx, d-Mandible
- (B) a-Hypopharynx, b-Mandible, c-Maxilla, d-Labrum
- (C) a-Labrum, b-Hypopharynx, c-Maxilla, d-Mandible
- (D) a-Maxilla, b-Hypopharynx, c-Mandible, d-Labrum



## Answer Key

Q1 (D)

Q2 (B)

Q3 (C)

Q4 (C)

Q5 (B)

Q6 (C)

Q7 (D)

Q8 (A)

Q9 (C)

Q10 (D)

Q11 (C)

Q12 (D)

Q13 (C)

Q14 (A)

Q15 (C)

Q16 (B)

Q17 (C)



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