

MORPHOLOGY

1. **Assertion(A): In Cockroach , most of the food is digested in the crop**

Reason(R): Crop internally lined with endoderm, which secretes most of digestive enzymes

- 1) Both A and R are correct and R explains A
- 2) Both A and R are correct and R does not explains A
- 3) A is true, R is false
- 4) A is false but R is true

2. **Assertion(A): In Cockroach mosaic vision with more sensitivity but less resolution is present**

Reason(R): With the help of several Ommatidia, a cockroach can receive several images of an object

- 1) Both A and R are correct and R explains A
- 2) Both A and R are correct and R does not explains A
- 3) A is true, R is false
- 4) A is false but R is true

3. **Assertion(A): In Cockroach , inspiration is an active process and the expiration is a passive process**

Reason(R): Dorso ventral muscles contracts during expiration and relax during the inspiration

- 1) Both A and R are correct and R explains A
- 2) Both A and R are correct and R does not explains A
- 3) A is true, R is false
- 4) A is false but R is true

4. **Arrange the following structures in descending order based on their number in each ommatidium**

- A) Corneagen cells B) Retenulae C) Semper cells
- D) Crystalline cone E) Cells in receptor region

- 1) D,A,C,E,B 2) A,C,D,B,E 3) E,B,C,A,D 4) B,E,C,A,D

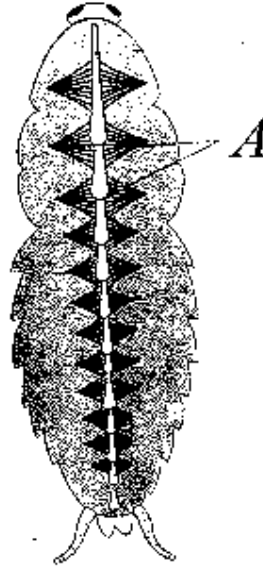
12. Newly hatched young cockroaches are called as

- 1) Larva 2) Nymph 3) Imago 4) Wiggler

13. 13- Chambered tubular heart is characteristic of

- 1) Cockroach 2) Earth worm 3) Housefly 4) Mosquito

14. Identify the labeled structure "A" in the following picture



- 1) Heart 2) Nerves 3) Alary muscles 4) Ligaments

15. The level of tracheolar fluid in the tracheoles of cockroach is

- 1) Always constant 2) Decreases when the insect is active
3) Increases when the insect is active 4) Decreases when the insect is inactive

16. Method of respiration in cockroach, grasshoppers etc..... in

- 1) Continuous ventilation 2) Double ventilation
3) Diffusion 4) Discontinuous ventilation

17. Most of CO_2 from haemolymph goes out through

- 1) Thoracic spiracles 2) Abdominal spiracles
3) Intersegmental membrane 4) Sclerites

18. Food locating olfactory sensilla are present on

- 1) Antenna 2) Labial palps 3) Maxillary palp 4) In all these three

19. Peritrophic membrane is secreted by

- 1) Anterior part of mesenteron 2) Stomodial valve
3) Posterior part of mesenteron 4) Wall of oesophagus

4) Labrum Galia Hypopharynx labial palp Maxillary
palp

26 **Assertion (A): Respiration in cockroach is called Holopnaustic type**

Reason(R): All the 10 pairs of spiracles are functional

- 1) Both A and R are correct and R explains A
- 2) Both A and R are correct and R does not explains A
- 3) A is true, R is false
- 4) A is false but R is true

27 $\xrightarrow{A} + \xrightarrow{B}$ forms the Arthroidal membrane, that allow flexible movements of the body parts in cockroaches. In the above statement A and B are

- 1) Exocuticle, epicuticle
- 2) Epcuticle, Endocuticle
- 3) Only Exocuticle
- 4) Exocuticle, Endocuticle

28 **Cockroach moves on smooth surface by using**

- 1) Aerolium
- 2) Mouth
- 3) Anal carci
- 4) plantulae

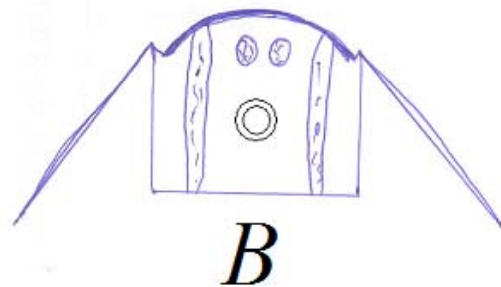
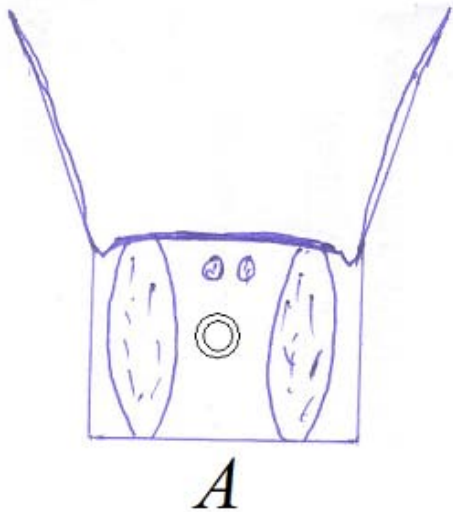
29. **The schizocoelom in cockroach in restricted to the spaces around the**

- 1) Reproductive organs
- 2) Complete Alimentary canal
- 3) Nerve cord
- 4) Only Gut

30. **In a tripod of a cockroach the 'pivot' is**

- 1) Absent
- 2) Foreleg
- 3) Middle leg
- 4) Hind leg

31. **Characters:-**



- A) Depressed tergum
- B) Contracted Dorsoventral muscles
- C) Contracted dorso longitudinal muscles
- D) Relaxed Dorsoventral muscles

E) Decreased body cavity

F) Increased body cavity

G) Elivated wings

H) Depressed wings

I) Raised tergum

J) Relaxed dorso longitudinal muscles

Among the given character which are related to pic. A

1) A,B,E,G,J

2)C,D,F,H,I

3)A,C,E,G,F

4) B,D,F,H,J

32. Male cockroach can be identified by the presence of

1) Collateral glands

2) Green glands

3) Broad abdomen

4) Anal style

33. Glossae and para glossae together constitute the -----

1) Ligula

2) Lingua

3) Protopodite

4) Exopodite

34. Match the following

Set-I

Set-II

I) Trophocytes

A) Storing of uric acid

II) Mycetocytes

B) Lipid secretion

III) Oenocyte

C) Storage of food

IV) Urate cells

D) Containing of symbiotic bacteria

1) I-D, II-A,-III-B, IV-C

2) I-A, II-C, III-D, IV-B

3) I-C, II-D, III-B, IV-A

4) I-B, II-C, III-A, IV-D

35. Identify the correct statement regarding brood pouch of cockroach?

i) Gynovalvular plates are formed from 7th sternum of its abdomen

ii) 8th sternum of abdomen forms the roof of brood pouch

iii) 9th sternum of abdomen forms the anterior wall of brood pouch

1) All are true

2) Only I

3) II & III only

4) Only III

36. Match the following

Set I

Set II

Set III

I) Gynatrium

A) Between 5th, 6th abdominal

E) Smooth muscles

Segments

II) Alary muscles

B) Reabsorption of excess water

F) Straited muscles

III) Stink glands

C) Anterior parts of brood pouch

G) Emits foul smell

IV) Colon

D) Circulation

H) Fertilization

I

II

III

IV

- | | | | |
|----|-----|-----|---------|
| 1) | D,E | B,G | A,F C,H |
| 2) | C,E | A,F | D,H C,G |
| 3) | C,H | D,F | A,G B,E |
| 4) | C,G | D,E | A,H B,F |
37. **Sockets of the movable bristles of the body wall are formed by**
1) Trichogen cells 2) Tormogen cells 3) Both 1 and 2 4) Oenocytes
38. **Scolopidia are the units of**
1) Photo receptors 2) Mechano receptors 3) Rheo-receptors 4) Olfactory receptors
39. **Brain of cockroach is mainly**
1) Sensory 2) Endocrine 3) Both 1 & 2 4) Motor
40. **Among the following which region of Malpighian tubule is absorption in function?**
1) Proximal 2) Middle 3) Distal 4) Both 2 & 3

KEY

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|------|------|------|------|------|------|------|------|------|------|
| 1.3 | 2.1 | 3.4 | 4.4 | 5.2 | 6.1 | 7.3 | 8.2 | 9.4 | 10.3 |
| 11.3 | 12.2 | 13.1 | 14.3 | 15.2 | 16.4 | 17.3 | 18.4 | 19.2 | 20.3 |
| 21.2 | 22.2 | 23.3 | 24.2 | 25.3 | 26.1 | 27.2 | 28.4 | 29.1 | 30.3 |
| 31.1 | 32.4 | 33.1 | 34.3 | 35.2 | 36.3 | 37.2 | 38.2 | 39.3 | 40.1 |