# MORPHOLOGY

1.	Assertion(A): In Coc	kroach , most of the f	ood is digested in the o	crop				
	Reason(R): Crop internally lined with endoderm, which secretes most of digestive enzymes							
	1) Both A and R are c	orrect and R explains A	L .					
	2) Both A and R are c	orrect and R does not e	xplains A					
	3) A is true, R is false		4) A is false but R is	true				
2.	Assertion(A): In Co	ockroach mosaic visi	on with more sensiti	vity but less resolution is				
	present							
	Reason(R): With the	help of several Omm	atidia, a cockroach ca	n receive several images of				
	an object							
	1) Both A and R are c	orrect and R explains A						
	2) Both A and R are c	orrect and R does not e	xplains A					
	3) A is true, R is false							
	4) A is false but R is t	rue						
3.	Assertion(A): In Cockroach , inspiration is an active process and the expiration is a passive							
	process							
	Reason(R): Dorso	ventral muscles cont	racts during expirati	ion and relax during the				
	inspiration							
	1) Both A and R are c	orrect and R explains A	L .					
	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				

5.	Arrange the followi	ng vessels in s	alivary	glands of c	ockroach	to flow the	saliva from
	zymogen cells to rece	eptacle					
	A) Receptacular duc	t		B) Median s	alivary d	uct	
	C) Common salivary	duct		D) Common	n receptac	cular duct	
	E) Ductules						
	1) E,B,C,A,D	2) E,C,B,D,A		3) E,C,B,A,I	)	4) E,A,B,C,E	
6.	Find out the correct	links of the give	en parts	s in cockroacł	1		
	A) Hepatic caeca		I) 6		E) Secr	etary & absor	ptive cells
	B) Malpighian tubul	es	II) 6-8	8	F) Excr	etion	
	C) Rectal papillae		III) 6	longitudinal	G) Reab	sorption of w	ater
	D) Plates		IV) 6	bundles	H) Grin	ding mill	
		Α		B		С	D
	1)	II-E		VI-F		I-G	III-H
	2)	I-G		VI-F		II-E	III-H
	3)	IV-F		П-Е		III-H	I-G
	4)	Ш-Н		1-G		IV-F	II-E
7.	7. Read the following statements						
	I) Each ovary contai	ns 6 ovarian tub	oules in	female cockr	oach		
	II) Spermatophore b	undles are form	ned in t	he seminal ve	sicles of f	emale cockro	ach
	III) A pair of spamat	theca is present	in 8th a	abdominal seg	gment		
	In the above correct	statement/s is/a	re				
	1)I & III	2) II & III		3) II only		4) III only	
8.	Number of eggs in ea	ach Ootheca of o	cockroa	ich			
	1) 8-10	2) 14-16		3) 1 or 2		4) only 8	
9.	Number of moults or	curs in nymph	of cock	roach to beca	ame adult	is	
Ľ,	1) 4	2) 10		3) 12		4) 13	
10.	Chitinous asymmetry	ical structures s	urroun	ding the male	e gonopoi	re are	
	1) Anal style	2) Gonads		3) Phallomer	res	4) Seminal ve	esicles
11.	Cockroach shows on	e of the followin	ng meta	morphism			
	1) Retrogressive meta	bolous		2) Holo metabolous			
	3) Pauro metabolus			4) None of th	he above		
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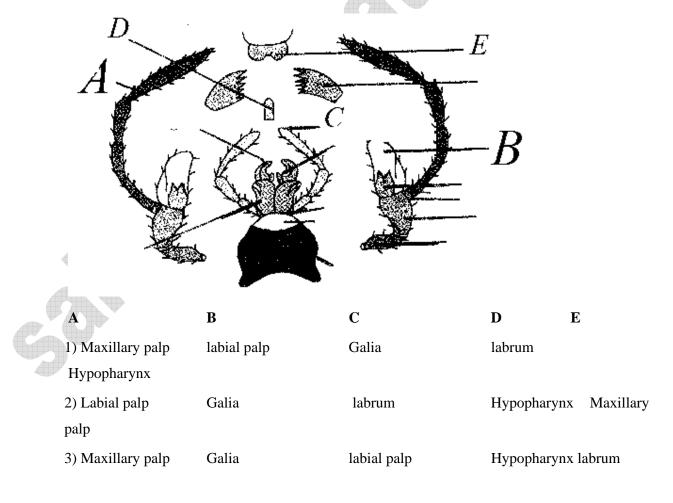
12.	Newly hatched young cockroaches are called as					
	1) Larva	2) Nymph	3) Imago	4) Wriggler		
13.	13- Chambered tube	ılar heart is characteri	stic of			
	1) Cockroach	2) Earth worm	3) Housefly	4) Mosquito		
14.	Identify the labeled	structure "A" in the fo	llowing picture			
			A			
	1)Heart	2) Nerves	3) Alary muscles	4) Ligaments		
15.	The level of trachelo	ar fluid in the tracheo	les of cockroach is			
	1) Always constant		2) Decreases when the	e insect is active		
	3) Increases when the	insect is active	4) Decreases when the	e insect is inactive		
16.	Method of respiration	on in cockroach, grassl	noppers etc in			
	1) Continuous ventila	tion	2) Double ventilation			
	3) Diffusion		4) Discontinuous vent	tilation		
17.	Most of CO <sub>2</sub> from h	aemolymph goes out t	hrough			
	1) Thoracic spiracles		2) Abdominal spiracle	es		
C	3) Intersegmental me	mbrane	4) Sclerites			
18.	Food locating olfact	ory sensilla are present	t on			
	1) Antenna	2) Labial palps	3) Maxillary palp	4) In all these three		
19.	Peritrophic membra	ne is secreted by				
	1) Anterior part of me	esenteron	2) Stomodial valve			
	3) Posterior part of m	esenteron	4) Wall of oesophagu	S		
			ducation com			

#### The foregut of cockroach is also named as 20. 1) Pro ventriculus 2) Ventriculus 3) Stomodaeum 4) Proctodaeum 21. Identify the correct sequence of layers in the wall of tracheae from outer to inner? 1) Epithelium- Basement membrane – Intima 2) Basement membrane-Epithelium- Intima 3) Intima-Epithelium-Basement membrane 4) Epithelium-Intima-Basement membrane 22. Ganglion located above the oesophagus of cockroach is 1) Frontal ganglion 2) Occipetal ganglion 3) Visceral ganglion 4) Ingluvial ganglion 23. Which of the following chardo-tonal organ is sensitive to ground vibrations? 1) Tympanal organs 2) Johnston organ 3) Sub-genual organ 4) 1 & 2 24. Common feature in earth worm and cockroach is 1) Cuticle (exoskeleton) 2) Solid, ventral nerve cord

25. Mouth parts of cockroach

3) Nephridia

4) Malpighian tubules



	4) Labrum	Galia	Hypopharynx	labial palp	Maxillary
•	palp				
26		-	is called Holopnaustic	type	
		10 pairs of spiracles a			
		correct and R explains			
		correct and R does not	-		
	3) A is true, R is fals	e	4) A is false but R is	true	
27	$\xrightarrow{A} + \xrightarrow{B}$ form	is the Arthroidal mem	brane, that allow flexi	ble movemen	ts of the body
	parts in cockroache	es. In the above statem	ent A and B are		
	1) Exocuticle, epico	uticle	2) Epicuticle, Endocu	ıticle	
	3) Only Exocuticle		4) Exocuticle, Endoc	uticle	
28	Cockroach moves	on smooth surface by	using		
	1) Aerolium	2) Mouth	3) Anal carci	4) plantulae	;
<b>29</b> .	The schizocoelom	in cockroach in restri	cted to the spaces aroun	nd the	
	1) Reproductive or	gans	2) Complete Aliment	ary canal	
	3) Nerve cord		4) Only Gut		
30.	In a tripod of a co	ckroach the 'pivot' is			
	1) Absent	2) Foreleg	3) Middle leg	4) Hind leg	
31.	Characters:-				
1		1			
9	6	A			
	1. 00/	1)			
	$\left[ \left[ 1 \right] \right] \odot \left[ \left[ 1 \right] \right]$				
		1		13	
	1	1	1	R	
	A		1		

C) Contracted dorso longitudinal muscles D) Relaxed Dorsoventral muscles

	E) Decreased body	cavity	F) Increased body ca	lvity
	G) Elivated wings		H) Depressed wings	
	I) Raised tergum		J) Relaxed dorso lon	gitudinal muscles
	0 0	aracter which are rela	-	
	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 car	n be identified by the p	presence of	
	1) Collateral glands	2) Green glands	3) Broad abdomen	4) Anal style
33.	Glossae and para gl	lossae together constit	ute the	
	1) Ligula	2) Lingua	3) Protopodite	4) Exopodite
34.	Match the following	5		
	Set-I	Set-II		
	I) Trophocytes	A) Storing of uric ac	id	
	II) Mycetocytes	B) Lipid secretion		•
	III) Oenocyte	C) Storage of food		
	IV) Urate cells	D) Containing of syn	nbiotic bacteria	
	1) I-D, II-A,-III-B, I	V-C	2) I-A, II-C, III-D, IV	-В
	3) I-C, II-D, III-B, IV	V-A	4) I-B, II-C, III-A, IV	-D
35.	Identify the correct	statement regarding l	brood pouch of cockro	ach?
	i) Gynovalvular pla	tes are formed from 7	<sup>th</sup> sternum of its abdon	nen
	ii) 8 <sup>th</sup> sternum of ab	domen forms the roof	of brood pouch	
	iii) 9 <sup>th</sup> sternum of al	bdomen forms the ant	erior wall of brood po	uch
	1) All are true	2) Only I	3) II & III only	4) Only III
36.	Match the following	5		
4	Set I	Set II		Set III
	I) Gynatrium	A) Between 5 <sup>th</sup> , 6 <sup>th</sup> al	bdominal	E) Smooth muscles
		Segments		
UD)	II) Alary muscles	B) Reabsorption of e	xcess water	F) Straited muscles
	III) Stink glands	C) Anterior parts of	brood pouch	G) Emits foul smell
	IV) Colon	D) Circulation		H) Fertilization
	I	п	ш	IV

	1)	D,I	£	B,G			A,F C,H	
	2)	C,I	£	A,F			D,H C,G	
	3)	C,I	H	D,F			A,G B,E	
	4)	С,(	۲ د	D,E			A,H B,F	
37.	Sockets of the	movable	bristles of the bod	<b>y wall a</b> r	re forme	d by		
	1) Trichogen ce	ells 2)	Formogen cells	3) Botl	n 1 and 2		4) Oenocyt	tes
38.	Scolopidia are	the units	of					
	1) Photo recept	ors 2) I	Mechano receptors	3) Rhe	o-recepto	ors	4) Olfactor	ry receptors
39.	Brain of cockr	oach is m	ainly					
	1) Sensory	2) I	Endocrine	3) Both	n 1 & 2		4) Motor	
40.	Among the fol	lowing wł	nich region of Mal	pighian	tubule is	s absorj	otion in fu	nction?
	1) Proximal	2) I	Middle	3) Dist	al	$\mathcal{P4}$	4) Both 2 &	& 3
			K	EY				
1.3			A UN	10010010				
	2.1	3.4	4.4 5.2	6.1	7.3	8.2	9.4	10.3
	2.1	3.4	4.4 5.2	6.1	7.3	8.2	9.4	10.3
			S.					
11.3	2.1 12.2	3.4 13.1	4.4 5.2 14.3 15.2		7.3 17.3	8.2 18.4	9.4 19.2	10.3 20.3
11.3			S.					
	12.2	13.1	14.3 15.2	16.4	17.3	18.4	19.2	20.3
11.3 21.2			14.3 15.2	16.4	17.3	18.4		20.3
	12.2	13.1	14.3 15.2	16.4	17.3	18.4	19.2	20.3
	12.2	13.1 23.3	14.3 15.2	<b>16.4</b> 3 26 <b>.1</b>	<b>17.3</b> 27.2	<b>18.4</b> 28 <b>.4</b>	<b>19.2</b> 29 <b>.1</b>	<b>20.3</b> 30.3
21.2	12.2 22.2	13.1 23.3	14.3 15.2   24.2 25.3	<b>16.4</b> 3 26 <b>.1</b>	<b>17.3</b> 27.2	<b>18.4</b> 28 <b>.4</b>	<b>19.2</b> 29 <b>.1</b>	<b>20.3</b> 30.3