

**ZOOLOGY TEACHERS ASSOCIATION MALAPPUAM**  
**FIRST YEAR HIGHER SECONDARY REVISION SERIES TEST -2022**  
**ZOOLOGY-ANSWER KEY**

Chapters: Neural Control & Coordination , Chemical Coordination & integration

Qn. NO	Sub Qns	Value points	Score	total								
		<b>Answer all questions from 1-3 .each carry 1 score</b>										
1		b)Melatonin	1	1								
2		Efferent nerves	1	1								
3		Synaptic cleft	1	1								
		<b>Answer any 9 questions from 4-14 .Each carry 2 scores</b>										
4		A-Atrial Natriuretic factor(ANF) B-Decreases blood glucose level C-Kidney D-Oxytocin	$\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$	2								
5	a	<table border="1" style="width: 100%;"> <thead> <tr> <th style="text-align: center;"><u>Electrical synapse</u></th> <th style="text-align: center;"><u>Chemical synapse</u></th> </tr> </thead> <tbody> <tr> <td>1)Impulse directly flows from one neuron to the next neuron</td> <td>Transmission of impulse occurs via neurotransmitters present in the synaptic vesicles of the axon terminals.</td> </tr> <tr> <td>2) It is faster in action</td> <td>2) It is slower in action</td> </tr> <tr> <td>3)Synaptic cleft absent</td> <td>3)Synaptic cleft present</td> </tr> </tbody> </table>	<u>Electrical synapse</u>	<u>Chemical synapse</u>	1)Impulse directly flows from one neuron to the next neuron	Transmission of impulse occurs via neurotransmitters present in the synaptic vesicles of the axon terminals.	2) It is faster in action	2) It is slower in action	3)Synaptic cleft absent	3)Synaptic cleft present	1	2
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		<b>(Any one point from each section carry one score)</b>										

6)	a	1-Resting neuron/polarised membrane/Resting potential 2-Action potential/depolarised membrane/nerve impulse	$\frac{1}{2}$ $\frac{1}{2}$	2
	b	Na+and K+ ions	1	
7)	a	Thyroid stimulating hormone	$\frac{1}{2}$	2
	b	Adrenocorticotrophic hormone	$\frac{1}{2}$	
	c	Luteinizing hormone	$\frac{1}{2}$	
	d	Follicle stimulating hormone	$\frac{1}{2}$	
8)	a	reflex action	$\frac{1}{2}$	2
	b	tympanic membrane	$\frac{1}{2}$	
	c	neurotransmitter	$\frac{1}{2}$	
	d	organ of Corti	$\frac{1}{2}$	
9	<b>b&amp;d</b>		<b>1</b>	2
	b-Parathyroid hormone increases blood calcium level		$\frac{1}{2}$	
	d-ANF decreases blood pressure		$\frac{1}{2}$	
10	a	Malleus,Incus,Stapes ( Any two carry $\frac{1}{2}$ score )	1	2
	b	Increase the efficiency of transmission of sound waves to the inner ear	1	
11	a	Growth hormone	$\frac{1}{2}$	2
	b	Insulin	$\frac{1}{2}$	
	c	Vasopressin/ant-diuretic hormone /ADH	$\frac{1}{2}$	
	d	Thyroid hormone/T3/T4 hormone	$\frac{1}{2}$	
12	a	Corpus callosum	1	2
	b	Cerebrum	1	
13	Eustachian tube- Equalising pressure on either side of the ear drum		$\frac{1}{2}$	2
	Cochlea- hearing		$\frac{1}{2}$	
	Semicircular canal- Balancing		$\frac{1}{2}$	
	Auditory canal- Passage of sound waves		$\frac{1}{2}$	
14	A-Axon		$\frac{1}{2}$	2
	B-Synaptic vesicle		$\frac{1}{2}$	
	C- synaptic cleft		$\frac{1}{2}$	
	D-Neurotransmitter		$\frac{1}{2}$	
15	A-Mid brain		$\frac{1}{2}$	3
	B-Hind brain		$\frac{1}{2}$	
	C-Thalamus/Hypothalamus		$\frac{1}{2}$	
	D-Hypothalamus/Thalamus		$\frac{1}{2}$	
	E-Cerebellum/medulla		$\frac{1}{2}$	
	F- Medulla/ Cerebellum		$\frac{1}{2}$	

<b>16</b>	a	<b>Chole systokinin/CCK</b> acts on both pancreas and gall bladder and stimulates the secretion of pancreatic enzymes and bile juice	1	<b>3</b>
	b	<b>Gastrin</b> acts on the gastric glands and stimulates the secretion of hydrochloric acid and pepsinogen.	1	
	c	<b>Secretin</b> acts on the exocrine pancreas and stimulates the secretion of water and bicarbonate ions.	1	
<b>17</b>	a	1)Cornea 2)Pupil 3)Iris 4)Lens	$\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$	<b>3</b>
	b	Rods and Cones	1	
<b>18</b>		<b>Figure shows the diagrammatic representation of the mechanism of hormone action</b> <b>a)Mechanism of protein hormone</b> - here the protein hormones interact with membrane-bound receptors normally do not enter the target cell, but generate second messengers which in turn regulate cellular metabolism. <b>b)Mechanism of steroid hormone</b> - Here the steroid hormones interact with intracellular receptors , mostly regulate gene expression or chromosome function by the interaction of hormone-receptor complex with the genome. Cumulative biochemical actions result in physiological and developmental effects	1 $\frac{1}{2}$  1 $\frac{1}{2}$	<b>3</b>
<a href="#">Prepared by Academic wing Zoology Association Malappuram</a>				