

ANSWER KEY

FIRST YEAR HIGHER SECONDARY IMPROVEMENT / SUPPLEMENTARY EXAMINATION OCTOBER 2022

PART III

SUBJECT ZOOLOGY

CODE NO FY 826

30 SCORES

1 HOUR

Qn No	Sub Qns	Answer key / Value points	Score	Total score
I. Answer any 3 Questions from 1 to 4. Each carries 1 score				
1		Amino Acids	1	1
2		Salivary Amylase	1	1
3		Pons	1	1
4		Pineal	1	1
II. Answer any 9 Questions from 5 to 17. Each carries 2 scores				
5		Class - Order - Family - Genus - species (Correct sequence can be considered)	1/2 X 4	2
6		Sycon - Porifera	1/2 X 4	2
		Adamsia - Cnidaria		
		Taenia - Platyhelminthes		
		Ancylostoma - Aschelminthes		
7		A. Ambhibia	1/2 X 4	2
		B. Osteichthyes		
		C. Cyclostomata		
		D. Chondrichthyes		
8		A. Diploblastic B. Triploblastic	1/2 X 2	2
		Eg Ctenophora/ Cnidaria Eg:- Platyhelminthes Annelida Hemichordata Arthropoda Mollusca Echinodermata Chordata	1/2 X 2	
9		A. Tubular parts of nephron / PCT / Nephron / Ducts of glands	1/2 X 4	2
		B. Squamous		
		C. Diffusion		
		D. Columnar		
10		Nymph	1/2	2
		Paurametabolus	1/2	
		Economic importance		
		They are pests/Transmit a variety of bacterial diseases by contaminating food materials/any relevant response	1/2 X 2	
11		A. Mouth	1/2 X 4	2
		B. Crop		
		C. Hepatic Caecae		
		D. Malpighian tubules		
12		A. Ducts from liver / hepatic duct	1/2 X 4	2
		B. Pancreatic duct /pancreas		
		C. Common Bile duct / bile duct		
		D. Gall Bladder		

13	Albumin	1/2 X 2	2
	Fibrinogen		
	Functions		
	Albumin helps in osmotic balance Fibrinogen needed for clotting or coagulation of blood		
14	Inspiration - steps	1/2 X 4	2
	Ribs and sternum raised/ inter costal muscles contracts		
	Volume of thorax increased		
	Diaphragm contracted		
	Air entering lungs or Any correct explanation carries full score		
15	Functions of hypothalamus	1/2 X 4	2
	Control Body temperature		
	Urge for eating and drinking		
	Regulation of sexual behaviour		
	Regulation of expression of emotional reactions (like excitement, pleasure, rage and fear and motivation)		
Secretion of hormones			
16	Emergency hormone - effects	1/2 X 4	2
	Increase alertness		
	pupillary dilation		
	Piloerection(raising of hair)		
	sweating		
	Increase heart beat/increase rate of respiration		
	Increase strength of heart contraction		
	Increase concentration of glucose in blood		
	stimulate breakdown of lipids and proteins		
	stimulate breakdown of glycogen		
(Any four points)			
17	Part A : Synaptic vesicle / Neuro transmitter / Acetyl choline / pre synaptic membrane / Pre synaptic knob (Any One)	1/2	2
	Function : Helps in impulse transmission / neurotransmitter (Acetyl Choline) helps in chemical transmission	1/2	
	Process : Synaptic transmission/	1	
	Nerve transmission /		
	Chemical transmission /		
	Neural transmission		
	III. Answer any 3 Questions from 18 to 22. Each carries 3 scores		
18	a	Carbonic anhydrase	1
	b	20-25 % combines with amino group of Haemoglobin to form carbamino haemoglobin and transported	1

	c	Remaining 7 % of CO ₂ is carried in a dissolved state through plasma	1	3
19		SA Node/ Sino atrial node/Pace maker AV Node /Auriculoventricular Node/ Bundle of His / AV bundle Purkinje Fibres Function : AV Node : Impulse transmitted to AV bundle and Bundle of His Bundle of HIS : From bundle of His impulse transmits through the atrio ventricular musculature Purkinje Fibres : Enables ventricular contraction by transmitting impulse through the ventricular musculature	1 1/2 X 3 1/2	3
20		1. Glomerular Filtration 2. Tubular reabsorption / reabsorption 3. Tubular secretion / secretion Glomerular filtration - ultra filtration,which is carried out in glomerulus Tubular reabsorption - 99 % of the filtrate reabsorbed by the renal tubule glucose, amino acids ,Na + etc. in the filtrate are reabsorbed actively. Nitrogenous wastes and and water reabsorbed passively Tubular secretion - Tubular cells secrete substances like H + , K + and ammonia into the filtrate .This helps in the maintainance of ionic and acid base balance of body fluids	1/2 X 3 1/2 1/2	3
21	a b c	Actin , myosin I Band get reduced H Zone disappears Sarcomere	1 1 1	3
22		1. Presence of feathers and wings 2. Pneumatic bones / long bones are hollow with air cavities 3. Air sacs connected to lungs supplement respiration (Any 3 relevant flight adaptations)	1 1 1	3

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- 2 Dr.Sushil Kumar C 9495107035
- 3 Rajeshkumar R 8281493163
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- 5 Diveesh K P 9745566068
- 6 Vinnu V Dev 9447247615
- 7 Rekha K 9447968299
- 8 Joju Wilson 9447735905
- 9 Basheer S 7736486658
- 10 Kishore Kumar R 9495619829
- 11 Geetha Nair S 9446279977