

ANSWER KEY

FIRST YEAR HIGHER SECONDARY EXAMINATION MARCH 2025

PART-III/III

SUBJECT: ZOOLOGY

CODE NO: F/326 B

VERSION:.....

30 SCORES

1 HOURS

Qn. No	Sub Qns	Answer Key/Value Points	Score	Total Score
1	a)	ICBN - International Code for Botanical nomenclature.	$\frac{1}{2}$	1
	b)	ICZN - International Code of zoological nomenclature	$\frac{1}{2}$	
2	a)	Cutaneous Respiration	$\frac{1}{2}$	1
	b)	Pulmonary Respiration	$\frac{1}{2}$	
3		Fructose	1	1
4	a)	Actin filament	$\frac{1}{2}$	1
	b)	Myosin Monomer (Meromyosin)	$\frac{1}{2}$	
5		Corpus callosum	1	1
6	Male Frog	Female Frog	$\frac{1}{2} \times 4$	2
	comparitively small	Large		
	Vocal sac present	Absent		
	copulatory Pad or Nuptial Pad present	Absent (Any 2 Points)		

Qn. No	Sub Qns	Answer Key/Value Points	Score	Total Score								
7	a)	SA Node → AV Node → Purkinje fibres ← Bundle of His ←	1	2								
	b)	SA Node maintains rhythmic contractile activity of heart / Initiates heart beat	1									
8		A - Nerve cord B - Notochord c - Gill slits D - Post anal part	$\frac{1}{2} \times 4$	2								
9		Radula - Mollusca Parapodia - Annelida Comb plates - Ctenophora Calcareous ossicles - Echinodermata	$\frac{1}{2} \times 4$	2								
10		<table> <tr> <th>Cyprinodontes</th> <th>Osteichthyes</th> </tr> <tr> <td>* Mouth located ventrally</td> <td>* Mouth mostly terminal</td> </tr> <tr> <td>* Most of them are viviparous</td> <td>* Most of them are Oviparous</td> </tr> <tr> <td>* Placoid scales</td> <td>* Ctenoid, cycloid scales</td> </tr> </table>	Cyprinodontes	Osteichthyes	* Mouth located ventrally	* Mouth mostly terminal	* Most of them are viviparous	* Most of them are Oviparous	* Placoid scales	* Ctenoid, cycloid scales		
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7	* Cartilaginous fishes * Air bladder absent * Internal fertilization	* Bony fishes * Air bladder Present * External fertilization (Any 4 Points)	$\frac{1}{2} \times 4$	2
11		A - Eosinophil B - 0.5 - 1% C - phagocytic D - inflammatory response	$\frac{1}{2} \times 4$	2
12	a) Each rib is thin flat bone connected dorsally to the vertebral column and ventrally to sternum. It has two articulation surfaces hence it is bicephalic. (or correct explanation) b) Thoracic vertebrae, ribs and sternum.		$\frac{1}{2}$	2
13	a) A) Afferent arteriole B) Bowman's Capsule		$\frac{1}{2} \times 2$	
	b) Cortical Nephrons Nephrons their loop of Henle is too short and extends only very little into medulla	Juxta medullary Nephrons Loop of Henle is very long and runs in deep into medulla.	$\frac{1}{2} \times 2$	2

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14		a) Insulin b) Parathyroid hormone/PTH c) Adrenalin / epinephrine / Adrenal medullary hormone d) Vasopressin	$\frac{1}{2} \times 4$	2
15		i) $\begin{array}{c} \text{CH}_2\text{OH} \\ \\ \text{CH-OH} \\ \\ \text{CH}_2\text{OH} \end{array}$ ii) $\begin{array}{c} \text{COOH} \\ \\ \text{H}-\text{C}-\text{NH}_2 \\ \\ \text{CH}_2\text{OH} \end{array}$ iii) collagen iv) Tryptophan, Tyrosine and Phenyl Alanine (any 1, example)	$\frac{1}{2} \times 4$	2
16	a)	Oxidoreductases Transferases Ligases, Lyases, Isomerases and Hydrolyases. (any 2 classes)	$\frac{1}{2} \times 2$	2
	b)	Non-protein part of enzyme; catalytic activity of enzyme losses.	$\frac{1}{2}$ $\frac{1}{2}$	
17	a)	A - Polyp B - Medusa	$\frac{1}{2} \times 2$	

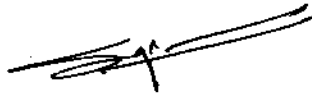
Qn No.	Sub Qn	Answer/Key	Value points	Score	Total Score
	b)	Polyp	Medusa		
		- sessile	Free swimming		
		cylindrical	umbrella shaped	$\frac{1}{2} \times 2$	3
		Asexual	Sexual. (Any 2 correct difference)		
	c)	Alternation of generation (Correct definition carry 1 score)			
18)	a) i)	<u>Renin</u> - Convert angiotensinogen into blood into angiotensin I, further into angiotensin II which act as a powerful vaso-constrictor, increases glomerular blood pressure			
	ii)	<u>ANF</u> (Atrial Natriuretic factor) - Vasodilatation there by decreases blood pressure			3
	b)	<u>Lungs</u> - Removal of CO_2 and water			
		<u>Liver</u> - secrete Bilirubin, Biliverdin, cholesterol, degraded steroid hormones, vitamin, drugs (any one role)		$\frac{1}{2}$ $\frac{1}{2}$	
19)	a)	A) Nucleus B) Axon/myelin sheath			
	c)	Nodes of Ranvier D) synaptic Knob or Axonite			
	b)	i) embryonic stage ii) Retina of eye			3

Qn No.	Sub Qn	Answer key / Value points	Score	Total Score
20)	a) <u>Inspiratory reserve volume</u> - Additional volume of air, a person can inspire by a forcible inspiration $\frac{1}{2}$ <u>Expiratory reserve volume</u> - Additional volume of air, a person can expire by a forcible expiration $\frac{1}{2}$ b) <u>Residual volume</u> - Volume of air remaining in the lungs even after a forcible expiration $\frac{1}{2}$ <u>Functional Residual Capacity</u> - Volume of air that will remain in the lungs after normal expiration $\frac{1}{2}$ c) <u>Expiratory capacity</u> - Total volume of air a person can expire after a normal inspiration. $\frac{1}{2}$ <u>Inspiratory Capacity</u> - Total volume of air a person can inspire after a normal expiration $\frac{1}{2}$		3	

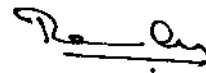
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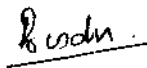
2. V. J. Wilson. P.
8921783324



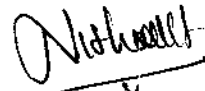
3. Reekha. K. 9447968299



4. BINDU. G , 9744390060



5. NISHA. V. M 9446483936



6. K. RAJASHRI 9745800356



7. DR. VINU. K. P 9447245211



8. Saji Kumar. G. S.
9847360769

