

ANSWER KEY

..First... YEAR HIGHER SECONDARY EXAMINATION*March*..... 2024

PART-I/II/III

SUBJECT:ZOOLOGY.....

CODE NO: **FY 426**

VERSION: **B...**

30... SCORES


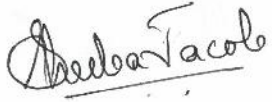
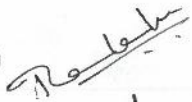



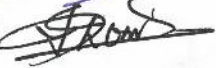

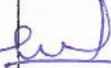




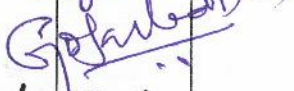

...1..... HOURS

Qn. No	Sub Qns	Answer Key/Value Points	Score	Total Score						
I		Answer any 3 questions from 1 to 5. Each carries 1 score								
1.		Binomial nomenclature	1	1						
2.		Starfish	1	1						
3.		Guanylic acid/structural formula	1	1						
4.		Sarcomere	1	1						
5.		JGA/Juxta glomerular apparatus/JG cells/ Kidney	1	1						
6.		<table border="1" style="margin: auto; border-collapse: collapse;"> <thead> <tr> <th style="padding: 5px;">polypeptides</th> <th style="padding: 5px;">polysaccharides</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">Trypsin</td> <td style="padding: 5px;">chitin</td> </tr> <tr> <td style="padding: 5px;">Insulin</td> <td style="padding: 5px;">Inulin</td> </tr> </tbody> </table>	polypeptides	polysaccharides	Trypsin	chitin	Insulin	Inulin	1 1	2
polypeptides	polysaccharides									
Trypsin	chitin									
Insulin	Inulin									
7.	1	a. Testis b. Kidney c. urinogenital duct/ureter d. Urinary bladder	$\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$	2.						

Qn. No	Sub Qns	Answer Key/Value Points	Score	Total Score
8.	a.	AB group can accept blood from persons with AB as well as the other groups of blood	1	2
	b.	The SAN can generate the maximum number of action potentials and is responsible for initiating and maintaining the rhythmic contractile activity of the heart.	1	
9.		The enzyme molecules are fewer than the substrate molecules and after saturation of these molecules, there are no free enzyme molecules to bind with the additional substrate molecule.		2
10	a)	Contraction of auricle and ventricle is called systole and the relaxation of auricle and ventricle is called diastole.	$\frac{1}{2}$ $\frac{1}{2}$	2
	b)	Plasma is a straw coloured viscous fluid present in the blood / plasma contain 90-92% water, plasma protein fibrinogen, small amount of minerals (any one point) • plasma without clotting factor / plasma protein called serum	$\frac{1}{2}$ $\frac{1}{2}$	
11.	a.	False	$\frac{1}{2}$	2
	b.	True	$\frac{1}{2}$	
	c.	False	$\frac{1}{2}$	
	d.	True	$\frac{1}{2}$	

Qn. No	Sub Qns	Answer Key/Value Points	Score	Total Score
12		<p>The flow of filtrate in the two limbs of Henle's loop is in opposite directions and thus forms a counter current. The flow of blood through the two limbs of vasa recta is also in counter current pattern. The proximity b/w Henle's loop and vasa recta as well as counter current in them help in monitoring an increase in osmolarity towards the inner medullary interstitium OR Relevant answer related to counter current mechanism (2 Points)</p>	2x1	2
13		<p>a) Cartilaginous joint / slightly movable b) Fibrous joint / immovable / sutures c) Pivot joint / synovial / freely movable d) Saddle joint / synovial / freely movable</p>	$\frac{1}{2} \times 4$	2
14		<p>a) ADH / vasopressin b) Hypothyroidism / Thyroxine / T₄ / T₃ Triiodothyronine / Tetraiodothyronine c) Insulin d) Growth hormone / somatotropin</p>	$\frac{1}{2} \times 4$	2
15		<p>a) Homiothermous animals b) Metamerism c) Bioluminescence d) Hermaphrodite / Monoecious / Bisexual</p>	$\frac{1}{2} \times 4$	2
16	a)	<p>a) Radula - Loligo b) Pinnac - Equas c) Osculum - sycon d) Hypostome - Hydra</p>	$\frac{1}{2} \times 4$	2

Qn. No	Sub Qns	Answer Key/Value Points	Score	Total Score
17	a	Radial symmetry	1	3
	b	Coelenterates, ctenophores, Echinoderms, (Cnidaria)	2	
18		<p>A fall in glomerular blood flow / glomerular blood pressure / GFR can activate the JG cells to release renin which converts angiotensinogen in blood into Angiotensin I, and Angiotensin II. Angiotensin II being a powerful vasoconstrictor, increases GBP and thereby GFR. Angiotensin II also activate adrenal cortex to release aldosterone. Aldosterone causes reabsorption of Na^+ and water from the distal parts of tubule. This also leads to increase in blood pressure and GFR. This complex mechanism is known as Renin-Angiotensin Mechanism / Explanation or Flow chart of RAAS</p>	3	3
19	a)	Synaptic vesicle	$\frac{1}{2} \times 6$	3
	b)	presynaptic membrane		
	c)	Synaptic cleft		
	d)	Post-synaptic membrane		
	e)	chemical and electrical synapse		
20	a)	Tidal volume; volume of air inspired or expired during normal respiration	1	3
	b)	Residual volume; volume of air remaining in the lungs even after a forcible expiration	1	
	c)	vital capacity; Maximum volume of air a person can breath in/out after a force	1	

Qn. No	Sub Qns	Answer Key/Value Points	Score	Total Score
		<p>forced expiration or inspiration $or TV + IRV + ERV = VC$</p>		
		<p>1) Mohammed Ibrahim T </p>		
		<p>9400933976</p>		
		<p>2) Sheeba Jacob </p>		
		<p>9746104155</p>		
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		<p>4) Jaya Mathew 9495811161 </p>		
		<p>5) Uma. M.G 9846782590 </p>		
		<p>6) Sindu C.R 9447970846 </p>		
		<p>7) Jiji Thomas 9961990919 </p>		
		<p>8) Mubarak. M 9846261324 </p>		
		<p>9) Ummakrishnan. K.R 9447993653 </p>		
		<p>10) Elizabeth Teresia 8921602492 </p>		
		<p>11) Saji kumar. G.S. 9847368789 </p>		
		<p>12) Manikandan. M 9447439310 </p>		
		<p>13. RAJESH KUMAR. R 8281493163 </p>		
		<p>14. GOKULADAS.G 9961663311 </p>		
		<p>15. VINNU. V. DEV 9447247615 </p>		