

FIRST YEAR HIGHER SECONDARY EXAMINATION MARCH 2018

SUBJECT: Zoology

CODE. NO: 117

Qn No	Sub Qns	Answer Key/Value Points	Score	Total
1		Kingdoms ← Phylum ← Class ← Order ← Family ← Genus ← Species (either in ascending or descending order) / any three correct sequence - carries ½ score	1	1
2.		Placoid scales	1	1
3		Retina / 'c'	1	1
4	(a) (b)	Serine Alanine	1 1	2
5.		Radial symmetry - Ctenophores, Coelenterates / Bilateral symmetry - Arthropods, Molluscs / correct headings with one example each carries full score / two correct heading only carries ½ score	½ + ½ ½ + ½	2
6	(a) (b)	Glomerular Filtration Rate / Tubular reabsorption / nearly 99% of the filtrate is reabsorbed by the renal tubules / due to reabsorption of filtrate / reabsorption / tubular absorption / active or passive absorption	1 1	2
7.		Femur, Tibia, Fibula, Tarsals	½ × 4	2

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8	(a) (b)	Lysozyme Salivary amylase / amylase / ptyalin	1 1	2
9		A - Crop B - Hepatic caecae C - Malpighian tubules D - Colon / Hindgut	$\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$	2
10	(a) (b)	depolarisation of the ventricles / ventricular contraction / ventricular systole Any deviation from the normal shape indicates a possible abnormality or disease / heart disease / defective heart functioning / chance of heart attack	1 1	2
11	(a) (b)	IRV - Inspiratory Reserve Volume / Additional volume of air, a person can inspire by a forcible inspiration / 2500ml - 3000ml ERV - Expiratory Reserve Volume / Additional volume of air, a person can expire by a forcible expiration / 1000ml - 1100ml IC - Inspiratory Capacity / TV + IRV / Total volume of air, a person can inspire after a normal expiration / relevant volume	$\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$	

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		EC - Expiratory Capacity / TV + ERV / Total volume of air, a person can expire after a normal inspiration/ relevant volume	$\frac{1}{2}$	2
12		(a) Peripheral Neural System / PNS (b) Spinal cord (c) Autonomic Neural System / ANS (d) Parasympathetic Neural System / Parasympathetic	$\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$	2
13	(a) (b) (c) (d)	Growth hormone / GH / Somatotropin Insulin Thyroxine / Tetraiodothyronine / T ₄ / Triiodothyronine / T ₃ / Thyroid hormones Vasopressin / ADH / Antidiuretic Hormone	$\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$	2
14	(a) (b) (c) (d)	Adipose tissue Ligaments Tendon Neural / Nervous tissue	$\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$	2
15	(a) (b) (c)	Neutrophils - 60-65% - Phagocytic Eosinophils - 2-3% - Allergic reactions Lymphocytes - 20-25% - Immune response	$\frac{1}{2} + \frac{1}{2}$ $\frac{1}{2} + \frac{1}{2}$ $\frac{1}{2} + \frac{1}{2}$	3

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16	(a)	(a) EP/Enzyme Product Complex (b) Product / P	$\frac{1}{2}$ $\frac{1}{2}$	3															
	(b)	Temperature / PH / substrate concentration / inhibitor (any two correct response carries '1' score)	$\frac{1}{2} + \frac{1}{2}$																
	(c)	(i) Oxidoreductases / dehydrogenases (ii) Lyases	$\frac{1}{2}$ $\frac{1}{2}$																
17.	(a)	A - Chymotrypsin B - Carboxy peptidase	$\frac{1}{2}$ $\frac{1}{2}$	3															
	(b)	Pancreas	1																
	(c)	A - Chymotrypsinogen B - Pro carboxy peptidases	$\frac{1}{2}$ $\frac{1}{2}$																
18	(a)	<table border="1"> <tr> <td>Pisces</td> <td>Amphibia</td> <td>Reptilia</td> <td>Aves</td> <td>Mammalia</td> </tr> <tr> <td>Dog fish</td> <td>Frog</td> <td>Alligator</td> <td>Penguin</td> <td>Blue whale</td> </tr> <tr> <td>Rohu</td> <td>Salamander</td> <td>Tortoise</td> <td>Vulture</td> <td>Flying fox</td> </tr> </table>	Pisces	Amphibia	Reptilia	Aves	Mammalia	Dog fish	Frog	Alligator	Penguin	Blue whale	Rohu	Salamander	Tortoise	Vulture	Flying fox	$\frac{1}{2} \times 5$ $= 2\frac{1}{2}$	3
		Pisces	Amphibia	Reptilia	Aves	Mammalia													
Dog fish	Frog	Alligator	Penguin	Blue whale															
Rohu	Salamander	Tortoise	Vulture	Flying fox															
(b)	Class - Aves / Birds	$\frac{1}{2}$																	

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