

FIRST
SECOND YEAR HIGHER SECONDARY EXAMINATION, MARCH 2016.
(Finalised Scheme of Valuation)

Subject: Biology – Part B Zoology

Code No: 317 Part B

Qn.No	Scoring Indicators	Split Score	Total Score
1.	Ctenophora	1	1
2.	Placoid scales	1	1
3.	Salivary amylase	1	1
4.	A - goblet cell / Mucous secreting cells B. Exocrine gland / Ducted gland	1 1	2
5.	a Mollusca b Cnidaria / coelenterata c. Chordata / Aves - Birds d. Hemichordata	1/2 1/2 1/2 1/2	2
6.	A. carbonic anhydrase	1	1
7.	a. Primary metabolites & Secondary metabolites b. Primary metabolites - Protein, carbohydrate, lipid, nucleic acid or their basic units like amino acids,	1/2 1/2	

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	<p>simple sugar, fatty acid, glycerol, Purines, Pyrimidines.</p> <p>Secondary metabolites - Pigments, alkaloids, Terpenoids, essential oils, toxins, lectins, drugs, polymeric substances or their examples</p>	<p>$\frac{1}{2}$</p> <p>$\frac{1}{2}$</p>	2
8.	<p>a) A - Lens B. Iris c. Cornea D. Optic nerve</p> <p>b) Rods, cones</p>	<p>$\frac{1}{2} + \frac{1}{2}$</p> <p>$\frac{1}{2} + \frac{1}{2}$</p> <p>$\frac{1}{2} + \frac{1}{2}$</p>	3
9.	<p>a) Sliding filament theory</p> <p>b) Actin and Myosin</p>	<p>1</p> <p>$\frac{1}{2} + \frac{1}{2}$</p>	2
10.	Museum	1	1
11.	<p>a) Chordata</p> <p>b) (i) Notochord (2) Dorsal tubular nerve cord (3) Pharyngeal gill slits (4) Post anal tail (5) Ventral heart</p> <p>Two correct response carries full score</p>	<p>1</p> <p>$\frac{1}{2} + \frac{1}{2}$</p>	2

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12.	a) Yes b) Justification - Role of ADH or Role of ANG II / Renin - Aldosterone or Role of ANP	$\frac{1}{2}$ $\frac{1}{2}$	2
13.	c) Presence of different types of teeth	1	1
14.	a) Oxygen dissociation curve / Percentage of saturation of haemo- globin with partial pressure of oxygen b) H^+ concentration / PH PCO_2 PO_2 Temperature Three factors	$\frac{1}{2}$ $\frac{1}{2} + \frac{1}{2} + \frac{1}{2}$	2
15.	Enzyme combines with substrate to form enzyme substrate complex Enzyme substrate complex dissociates into enzyme and product	2	2

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16.	<p>a) Insulin</p> <p>b) growth hormone / GH / STH / Somatotropin</p> <p>c) ADH / Vasopressin</p> <p>d) Thyroxine / T_4, T_3</p> <p style="text-align: center;">(OR)</p> <p>PTH - Increases calcium level in blood / Hypercalcaemic</p> <p>Calcitonin - Decreases calcium level in blood / Hypocalcaemic</p>	<p>$\frac{1}{2}$</p> <p>$\frac{1}{2}$</p> <p>$\frac{1}{2}$</p> <p>$\frac{1}{2}$</p> <p>(OR)</p> <p>1</p> <p>1</p>	<p>2</p> <p>(OR)</p> <p>2</p>
17.	<p>a) A - Aorta</p> <p>B - Semilunar valve</p> <p>C - Left ventricle</p> <p>b) Flow chart / diagrammatic representation showing double circulation (Pulmonary and systemic circulation)</p> <p style="text-align: center;">(OR)</p>	<p>$\frac{1}{2}$</p> <p>$\frac{1}{2}$</p> <p>$\frac{1}{2}$</p> <p>$\frac{1}{2}$</p> <p>(OR)</p>	<p>3</p> <p>(OR)</p>

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Qn.No	Scoring Indicators	Split Score	Total Score
	<p>a) SA node initiates, regulates and maintains heart beat</p> <p>b) Cardiac cycle: Sequence of events during the completion of one heart beat - systole and diastole.</p> <p>cardiac output: Volume of blood pumped by each ventricle per minute / Stroke volume \times heart rate</p>	1 1 1	 3
	<p>Grand Total Choice</p>	30 (5)	30 (5)