

FIRST YEAR HIGHER SECONDARY IMPROVEMENT EXAMINATION JULY 2017

SUBJECT : BIOLOGY (ZOOLOGY)

CODE. NO: 817 B

Qn No	Sub Qns	Answer Key/Value Points	Score	Total
1.		Herbarium others are taxonomic categories/ Taxon/Rank or Herbarium is a taxonomic aid (any one)	$\frac{1}{2}$ $\frac{1}{2}$	1
2.		Bilateral Symmetry	1	1
3.		phylum Arthropoda Malpighian tubule for excretion/ osmoregulation / elimination of waste materials	1 1	2
4.	a) Mosaic Vision b) eye / compound eye / ommatidium		1 1	2
5.		wrong statement B Corrected as cellulose is a polysaccharide	$\frac{1}{2}$ $\frac{1}{2}$	1
6.	A. Oxidoreductases / dehydrogenases B. Transferases		1 1	

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		(or) - Protein is made of different kinds of monomers - Protein is a polymer of amino acids - 20 different amino acids in protein - proteins are building blocks of amino acids (any 2 points carry full marks)		2
7.		<u>Areolar tissue</u> Frame work under skin / Secrete fibres / presence of cells (macrophages, mast cells, fibroblast / presence of collagen or elastin fibres / loose connective tissue (any one) <u>Adipose tissue</u> Loose connective tissue / under skin store fat (any one)	$\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$	2
8.		Initiate cardiac cycle / act as pacemaker / able to generate action potential / auto excitable / centre of myogenicity (answer with similar meaning) (any one point carries 2 score)	2	2

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9.	A. Pepsin / pepsinogen / Renin / Prorennin B. Carbohydrate / starch digestion C. Pancreas D. Lipid / fat digestion	$\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$	2	
10.	- Y-axis % of saturation of Hb with oxygen - factors - PO_2 , PCO_2 , H^+ conc ⁿ , temperature (any two)	1 $\frac{1}{2} \times 2 = 1$	2	
11	I A. Afferent arteriole B. Bowman's Capsule II PCT for reabsorption from glomerular filtrate or reabsorption	$\frac{1}{2}$ $\frac{1}{2}$ 1	2	
12.	High BP / BP patient / Hypertension	1	1	
13.	A. Pelvic girdle B. Sinovial / freely movable / ball + socket / hip joint C. Gout / Gouty arthritis	$\frac{1}{2}$ $\frac{1}{2}$ 1	2	
14.	A. X - Adrenal Cortex Y - Noradrenalin / Nor epinephrine	$\frac{1}{2}$ $\frac{1}{2}$		

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	B.	Prepare body to face emergency situation/ Stress situation	1	2
15.		<u>Action potential generation</u> 1. Freely permeable at point of stimulation / resting potential / Na-K Pump 2. Rapid influx of Na^+ and reversal of polarity 3. outer +ve, inner -ve or Self explanatory diagram or flow chart form (2nd point alone carries full score) (OR) 1. Impulse reach at synaptic terminal (or axon terminal or nerve end or Synapse). ↓ 2. & Synaptic vesicle move to pre-synaptic membrane, fuse and break release neurotransmitter / acetylcholine	1 1 1 1	

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		to cleft ↓ 3. Neurotransmitter attach to post synaptic membrane / receptor and action potential generated. (or) Axone terminal^① → Activation^② of synaptic vesicle → vesicle^③ attach with pre synaptic membrane → Release^④ of neurotransmitter to cleft → Post synaptic membrane receive neurotransmitter attaching with receptor generation of^⑤ action potential. (Any Three relevant points related to synaptic transmission from the above flow chart carries full score)	1 1 x 3	3
16	I	a. Agnatha b. Tachypoda	1/2 1/2	

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	II	<u>osteichthyes</u> - bony - Air bladder seen - mouth mostly terminal - operculum seen - oviparous <u>chondrichthyes</u> - cartilaginous - Air bladder absent - ventral mouth - gill slits without operculum - viviparous or <u>any other correct points</u> - (<u>any two</u>)	1x2	3

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