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FIRST YEAR HIGHER SECONDARY MODEL EXAMINATION-2022

ZOOLOGY ANSWER KEY

Qn No.	Scoring Key	Score
	I Answer any three questions from 1 to 4. Each carries 1 score.	3x1=3
1.	Duodenum	1
2.	Dwarfism	1
3.	Glycosidic bond	1
4.	Carbamino-haemoglobin	1
	II Answer any nine questions from 5 to 17. Each carries 2 score	9x2=18
5.	a) Heterodont : Different types of teeth / Four different types of teeth / Four or different types of teeth namely Incisor (I), Canine (C), Pre-molar (PM), and molar (M)	1/2
	Thecodont : Each tooth is embeded in a socket of jaw bone. This type of attachment is called thecodont	1/2
	b) Dental formula of man : $\frac{2123}{2123}$	1
6.	a. A: Nerve cord	1/2
	B: Noto chord	1/2
	C: Gill slits	1/2
	D: Post anal part	1/2
7.	A: Central neural system (CNS)	1/2
	B: Autonomic neural system (ANS)	1/2
	C: Mid brain	1/2
	D: Parasympathetic neural system	1/2

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Qn No.	Scoring Key	Score
8.	ADH / antidiuretic hormone facilitates water-reabsorption from the latter parts of renal tubule. So this hormone prevent diuresis. Hence this hormone is called antidiuretic hormone. / ADH Prevent excessive loss of water through urine / ADH prevent diuresis.	2
9.	a. A : Skeletal muscle / Striated / Striped muscle tissue B : Smooth / non striated / non striped / visceral muscle tissue. C : Cardiac muscle tissue. b. Cardiac muscle tissue	½ ½ ½ ½
10	Taxonomic aids: x Key — Explanations: Taxonomic aid used for identification of plants and animals based on the similarities and dissimilarities	½
	x Museum — Have collection of preserved plants and animal specimens for study and reference.	½
	x Zoological park — The places where wild animals are kept in protected environments under human care.	½
	x Monograph — Contain information on any one taxon.	½
11.	Diagramatic representation of a standard ECG / Electro cardiogram / Graphical representation of electrical activity of the heart during a cardiac cycle	1

Qn No.	Scoring Key	Score
	b. QRS : Depolarisation of ventricle	1
12.	A : Ommatidium B : Respiration C : Excretory Organ D : Gizzard	½ ½ ½ ½
13	a) A : Scala vestibuli B : Tectorial membrane C : Scala media b) Organ of Corti contains hair cells that act as auditory receptor.	½ ½ ½ ½
14	Oviparous: × Corvus (½), × Testudo (½) Viviparous: × Canis (½), × Felis (½)	2
15	a) Adipose tissue: × It is a loose connective tissue; × It is located beneath the skin; × This tissue is specialised to store fat Areolar tissue: × It is a loose connective tissue; × It is present beneath the skin; × This tissue act as a support framework for epithelium (Any one point carry ½) or Any relevant comparison	1½

Qn No.	Scoring Key	Score
	b)	

Tendons	Ligaments
× It is a type of Dense regular connective tissue	× It is a type of Dense regular connective tissue
× Tendon attach skeletal muscle to bones	× Ligaments attach one bone to another

Any one point from each session — ½+½

16 Metagenesis — ½

× Cnidarians exhibit two basic body forms called polyp and medusa. — ½

× Those cnidarians which exist in both forms ~~are called~~ shows alternation of generation or metagenesis.

× polyp produce medusae asexually and medusae ~~form~~ form the polyps sexually

Eg: Obelia — ½

×

Polyp	Medusae
Sessile Cylindrical shaped Eg: Hydra Adamsia	Free swimming Umbrella shaped Eg: Aurelia

½

17. a. Oxyhaemoglobin formation taking place at Alveoli/ cirsac — ½

Oxyhaemoglobin dissociation occurs at Tissues. — ½

b) Low pO_2, High pCO_2, High H^+ concentration

Qn No.	Scoring Key	Score
	High Temperature. (Any 2 Factor)	1/2+1/2
	III Answer any 3 question from 18 to 22. Each carries 3 score	
18.	a. Malpighian body / Renal corpuscle	1
	b. A : Afferent arteriole	1/2
	B : Bowman's capsule	1/2
	c. Glomerulus is a tuft of capillary formed by the afferent arteriole	1
19.	a. i) Fibrous joint / immovable joint	1/2
	ii) Cartilaginous joint / slightly movable joint	1/2
	iii) Synovial joint / movable joint	1/2
	b. Joints are point of contact between bones or between bones and cartilages.	1
	c. Humerus and pectoral girdle / shoulder joint / Hip joint / Femur and pelvic girdle	1/2
20	a. A : Radial symmetry	1/2
	B : Bilateral symmetry	1/2
	b. Radial symmetry: Here the body of organism divides into 2 identical halves when any plane passed through central axis of body	1/2+1/2
	Bilateral symmetry: Here the body can be divided into identical Right and left halves in only one plane	
	c. Sponges	1
21	a. i) Prosthetic group	1/2
	ii) Co-enzymes	1/2
	iii) Metal ions	1/2
	b. NAD (Nicotinamide adenine dinucleotide)	1/2

Qn No.	Scoring Key	Score
	NADP (Any one co-enzyme) c) Catalytic activity is lost when the cofactor is removed from the enzyme	1
22	a. i) Pulmonary Circulation ii) Systemic Circulation b. Pulmonary Circulation significance × Deoxygenated blood carried into the lungs from where oxygenated blood is carried back to heart or × Pulmonary Circulation helps in the formation of oxygenated blood Systemic Circulation significance × This Circulation provide nutrients, O_2 and other essential substance to the tissues and takes Co_2 and other harm full substance away for elimination c. Hepatic portal System × Vascular connection between digestive tract and liver is called hepatic portal system. × Here Hepatic portal vein carries blood from Intestine to the liver before it is delivered to the systemic Circulation.	½ ½ ½ ½ ½ ½