FIRST YEAR HIGHER SECONDARY MODEL EXAMINATION , FEBRUARY-2020

ZOOLOGY- ANSWER KEY

<table>
<tr><th>QN.No</th><th>SCORING KEY</th><th>SCORE</th></tr>
<tr><td colspan="3">Answer any 3 questions from 1 to 5</td></tr>
<tr><td>1</td><td>c) Key</td><td>1</td></tr>
<tr><td>2</td><td>Protonephridia</td><td>1</td></tr>
<tr><td>3</td><td>c) Peptide bond</td><td>1</td></tr>
<tr><td>4</td><td>B) Larynx</td><td>1</td></tr>
<tr><td>5</td><td>b) Nereis</td><td>1</td></tr>
<tr><td colspan="3">Answer any 9 questions from 6 to 16</td></tr>
<tr><td>6</td><td>a) A-Skeletal muscle/Striated muscle
B- Smooth muscle/ Non striated muscle/ Visceral muscle/ Involuntary muscles
b)
<table>
<tr><th>Skeletal muscle</th><th>Smooth muscle</th></tr>
<tr><td>Attached to skeletal bones</td><td>Occur in walls of visceral organs</td></tr>
<tr><td>Cylindrical cells with blunt ends</td><td>Spindle shaped cells with tapering ends</td></tr>
<tr><td>Multinucleated</td><td>Uninucleated</td></tr>
<tr><td>Alternate light and dark bands present</td><td>Light and dark bands absent</td></tr>
<tr><td>Helps in voluntary movement</td><td>Helps in involuntary movement</td></tr>
<tr><td>Fatigued when over worked</td><td>No fatigue when over worked</td></tr>
</table>
(Any two features)</td><td>½
½
½
½</td></tr>
<tr><td>7</td><td>
<table>
<tr><th>Tight Junction</th><th>Adhering junction</th><th>Gap Junction</th></tr>
<tr><td>Help to stop substances from leaking across a tissue</td><td>Perform cementing to keep neighboring cells together.</td><td>Cell to cell communication,rapid transfer of ions,molecules etc.</td></tr>
</table>
(specify any two)</td><td>1
1</td></tr>
<tr><td>8</td><td>Protect the mucosal epithelium from excoriation by the highly concentrated HCl and also lubrication</td><td>2</td></tr>
<tr><td>9</td><td>a)
<table>
<tr><th>Apoenzyme</th><th>Coenzyme</th></tr>
<tr><td>Protein part of enzyme</td><td>Non protein part of enzyme</td></tr>
</table></td><td>1</td></tr>
</table>

		1

Lyases	Ligases
Enzyme catalyses the breaking of chemical bond	Enzyme catalyses the joining of chemical bond(DNA Ligase join the DNA Strands)

10	**. a) Reptilia** **b)** • **Creeping vertebrate** • **Terrestrial** • **cold blooded** • **3 chambered heart** • **Dry & non glandular skin with exoskeletal covering of epidermal scales** • **Shows skin casting (Any two features)**	**1** **1**
11	**a) Dipeptidase , Intestinal lipase ,Disaccharidases,Nucleosidase** **b) Dipeptidase : breakdown dipeptide into Amino acids** **lipase : covert diglyceride and monoglyceride into Fatty acid & Glycerol** **Disaccharidases : Disaccharides to monosaccharides** **Nucleosidase : Nucleoside to sugar and base** **(Any two)**	**1** **1**
12	**. a) the normal respiratory rate in adult is about 12-16 times about 10 litres per minute.** **b) Spirometer/ Respirometer** **c) it helps in clinical assessment of pulmonary function.**	**1** **1/2** **½**
13	**b) RBC is non nucleated in Human** **C) Neutrophils, Eosinophils and Basophils are granulocytes.**	**1** **1**
14	**a) ball & socket joint, hinge joint, Pivot joint, Gliding joint, Saddle joint** b)	**½** **½**

Ball & Socket joint	Shoulder and Hip
Hinge joint	Knee , Elbow and between phalanges
Pivot joint	Between atlas and axis (neck)
Gliding joint	Between the carpals
Saddle joint	Between carpal & metacarpal (thumb

(any two)

½
½

15		**½**

Glands	Hormones	Disease
Pituitary gland	a)Vasopressin/ADH	Diabetes insipidus
pancreas	Insulin	b) Diabetes

1/2
½

			mellitus	½
		c) Thyroid gland	Thyroxin	Cretinism
		d) Pituitary gland	Growth hormone	Dwarfism
16	a) Atrial Natriuretic Factor b) Walls of Atria (heart) c) ANF inhibits the release of rennin from JGA and it act as a vasodilator and there by decrease the blood pressure and there by check renin angiotensin mechanism			1/2 1/2 1
	Answer any 3 Questions from 17 to 20			
17	a) Neuron b) A – Dendron B – Cell body C - Axon c) Synaptic knob/ Nerve endings : Produce Neurotransmitters ,substance responsible for the transmission of nerve impulse across the synaps.			1/2 ½ ½ ½ 1
18	a) Erythroblastosis foetalis b) Maternal- Foetal Rh incompatibility (anti Rh antibodies from Rh –ve mothers blood leak into blood of Rh +ve foetus and destroy foetal RBC c) Anaemia and jaundice			1 1 1
19	a) Coelenterata /Cnidaria b) aquatic, sessile, free swimming ,radial symmetry, presence of cnidoblast, gastrovascular cavity present, holozoic and carnivorous (any four) c) Hydra,Obelia, Aurelia,Physalia, pennatula, Gorgonia… (any one)			1/2 1/2 1/2 ½ 1/2 ½
20		A	B	½
		a) Tendon	iii) Attach muscle to bone	½
		b) Columnar epithelium	iv)Helps in secretion	½
		c) Bone	v) Support	½
		d) Adipose Tissue	i) Store fat	½
		e) Ligament	vi) Attach bone to bone	½
		f) Blood	ii) Fluid connective tissue	½