

**RUBRICS: SSC II 1<sup>st</sup> ANNUAL EXAMINATION 2023**  
**SUBJECT: BIOLOGY-II(HA)**

Q.# /Part #	Criteria	Level 1 (Marks)	Level 2(Marks)	Level 3 (Marks)	Level 4 (Marks)	Level 5 (Marks)	Level 6 (Marks)
2(i)	Process of Hemodialysis	Correct process mentioning any three components like dialysis chamber, dialysis fluid, tube, dialysis membrane, flow of blood through dialysis tube and returning of clean blood etc. (3)	Any two correct criteria (2)	Any one correct criterion (1)	Some relevant information (0.5)	Wrong answer (0)	
2(ii)	Reason of different O <sub>2</sub> level in inspired and expired air	Correct reason i.e. oxygen used in body (1)	Partially correct reason(0.5)	Wrong answer (0)			
	Reason of different CO <sub>2</sub> level in inspired and expired air	Correct reason i.e. carbon dioxide produced in body(1)	Partially correct reason (0.5)	Wrong answer (0)			
	Reason of different H <sub>2</sub> O vapours in inspired and expired air	Correct reason i.e. produced in body (1)	Partially correct reason (0.5)	Wrong answer (0)			
2(iii)	Bones of Middle ear	Correct names of three bones i.e. Malleus, Incus and stapes (1.5)	Correct names of two bones (1)	Correct name of one bone (0.5)	Wrong answer (0)		
	Parts of inner ear	Three correct names i.e. cochlea, three semicircular canals, vestibule (1.5)	Any two correct names (1)	Any one correct name (0.5)			
2(iv)	Names of labeled parts	Three correct identification A= Anther B=Petal C=Ovary(1.5)	Any two correct identification (1)	Any one correct identification (0.5)	Wrong answer (0)		

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	Importance of parts	Correct importance of labelled parts i.e. A= produce pollen grains B= helps in pollination C= produce ovule/ fertilization/ fruit and seed formation (1.5)	Any two correct importance (1)	Any one correct importance (0.5)	Wrong answer (0)			
2(v)	Role of Pituitary gland in water balance	Correct description mentioning ADH controls water reabsorption from filtrates so release from pituitary in water deficiency/ thirst etc. (3)	Partially correct description (1.5)	Some relevant information (1)	Wrong answer (0)			
2(vi)	Food web	Correct names of four herbivores and two carnivores at specific position (3)	Any five correct names at specific position (2.5)	Any four correct names at specific position (2)	Any three correct names at specific position (1.5)	Any two correct names at specific position (1)	Any one correct name at specific position (0.5)	Wrong answer (0)
2(vii)	Osteocytes Hinge joint Ligaments	Correct description of three (3)	Correct description of any two (2)	Correct description of any one (1)	Some relevant information (0.5)	Wrong answer (0)		
2(viii)	Importance	Importance of any two parts i.e. <b>a.</b> keep trachea open all time/ does not allow it to collapse <b>b.</b> sound production, <b>c.</b> helps in ventilation/ breathing (3)	Any one correct importance (1.5)	Some relevant information (0.5)	Wrong answer (0)			
	a. C- shaped cartilage							
	b. Larynx							
	c. Diaphragm							
2(ix)	Selection of Pea plant by Mendel	Any three correct reasons of selection like self fertilizing, hermaphrodite, short life cycle, easy to	Any two correct reasons of selection (2)	Any one correct reason of selection (1)	Some relevant information (0.5)	Wrong answer (0)		

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			grow, contrasting characters, can be cross pollinated etc. (3)					
2(x)	Diagram of dicot seed	Sketching	Neat and correct sketch (1.5)	Partially correct sketch (1)	Wrong answer (0)			
		labelling	Any three correct labelling (1.5)	Any two correct labelling (1)	Any one correct labelling (0.5)	Wrong answer (0)		
2(xi)	Causative organism of Pneumonia		Correct causal organism i.e. <i>Streptococcus pneumoniae</i> (1)	Bacteria instead of scientific name (0.5)	Wrong answer (0)			
	Symptoms of Pneumonia		Any two correct symptoms like lung infection, fever, fatigue, shortness of breath, coughing etc. (1)	Any one correct symptom (0.5)	Wrong answer (0)			
	Treatment of Pneumonia		Any one correct treatment like antibiotics (1)	Some relevant information (0.5)	Wrong answer (0)			
2(xii)	Organism used for single cell protein (SCP)		Any two correct names like yeast, algae, chlorella, bacteria etc. (1)	Any one correct name (0.5)	Wrong answer (0)			
	Importance of SCP		Any two correct significances like easy/cheap source of proteins, easy to culture, used for animal feed etc. (2)	Any one correct significance (1)	Some relevant information (0.5)	Wrong answer (0)		
2(xiii)	Fermenter		Correct description (1)	Some relevant information (0.5)	Wrong answer (0)			
	Importance of Fermenter		Any two correct points of importance like large scale production of fermentation products hormones, medicines, antibiotics, alcohol etc.	Any one correct importance (1)	Some relevant information (0.5)	Wrong answer (0)		

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		(2)					
2(xiv)	Mode of action of vaccine	Correct description / flow chart mentioning use of antigen/ weak/ dead germ, produce antibodies, action of antibodies etc. (3)	Any two correct criteria (02)	Any one correct criterion (1)	Some relevant information (0.5)	Wrong answer (0)	
2(xv)	Narcotics from opium	Any two correct drugs like morphine, codeine, heroine (1)	Any one correct drug (0.5)	Wrong answer (0)			
	Effects on human	Any two correct effects like nausea, dizziness, hallucination, vomiting etc. (2)	Any one correct effect (1)	Some relevant information (0.5)	Wrong answer (0)		
3(a)	Sources of variation in sexually reproducing organisms	Four correct sources like meiosis, crossing-over, random fertilization, mutation, independent assortment, gene flow etc. (2)	Three correct sources (1.5)	Two correct source (1)	One correct source (0.5)	Wrong answer (0)	
	Types of variations	Correct description of both continuous and discontinuous variations (2)	Correct description of any one variation (1)	Some relevant information (0.5)	Wrong answer (0)		
	Examples	One correct example of each type (1)	Any one correct example (0.5)	Wrong answer (0)			
3(b)	Structure of Nephron	Correct description of structure mentioning <b>renal corpuscle</b> (glomerulus and Bowman 's capsule), <b>renal tubule</b> (first and last coiled parts and loop of Henle) <b>capillary network</b> (3)	Correct description of any two major parts (2)	Correct description of any one part (1)	Some relevant information (0.5)	Wrong answer (0)	
	Labeled diagram of	Neatly sketched	Neatly sketched	Partially correct	Wrong answer		

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	nephron	correct diagram with any four labeling (2)	without labelling/ partially correct diagram with two labelling (1)	diagram with one labeling (0.5)	(0)		
4 (a)	Labeled diagram of eye	Neatly sketched correct diagram with any six labeling (4)	Neatly sketched diagram with any four labeling (3)	Partially correct diagram with any two labeling (2)	Partially correct diagram with one labeling/ correct diagram without labelling (1)	Wrong answer (0)	
	Function of middle and inner layer of eye	Correct function of any one component of <ul style="list-style-type: none"> <li>• <b>middle layer/ choroid</b> (iris, pupil, ciliary muscle etc.) &amp;</li> <li>• <b>inner layer/ retina</b> (rods and cones) (2)</li> </ul>	Correct function of any one major part OR partially correct function of both layers (1)	Some relevant information (0.5)	Wrong answer (0)		
4 (b)	Carbon cycle	Correct description of any four steps of carbon cycle i.e. respiration, burning, decomposition, fossil formation, photosynthesis, importance etc. (4)	correct description of any three steps (3)	correct description of any two steps (2)	correct description of any one step (1)	Some relevant information (0.5)	Wrong answer (0)
5 (a)	Antagonism	Correct description (2)	Partially correct description (1)	Some relevant information (0.5)	Wrong answer (0)		
	Biceps as antagonistic muscles	Correct description of biceps like <b>location</b> , <b>function</b> (flexion) and <b>action</b> (bending at elbow joint) (1.5)	Correct description of any two criteria (1)	Correct description of any one criterion (0.5)	Wrong answer (0)		
	Triceps as antagonistic muscles	Correct description of triceps like <b>location</b> , <b>function</b> (extension) and <b>action</b> (straightening at elbow joint) (1.5)	Correct description of any two criteria (1)	Correct description of any one criterion (0.5)	Wrong answer (0)		

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5 (b)	Female reproductive system of rabbit	Correct description of any three parts like ovary, follicles, oviduct/ fallopian tube, uterus, vagina/ birth canal etc. (3)	Correct description of any two parts (2)	Correct description of any one part (1)	Some relevant information (0.5)	Wrong answer (0)	
	Labeled diagram	Neatly sketched correct diagram with four labelling (2)	Partially correct diagram with two labelling/ correct diagram without labelling (1)	Partially correct diagram (0.5)	Wrong answer (0)		

**Note: All the markers must know the solutions of all the question items of the question paper before starting marking.**