

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

Q.# /Part #	Criteria	Level 1 (Marks)	Level 2(Marks)	Level 3 (Marks)	Level 4 (Marks)	Level 5 (Marks)	Level 6 (Marks)
2(i)	Observations A.F.A. King	Three correct observations (3)	Any two correct observations (2)	Any one correct observation (1)	Some relevant information (0.5)	Wrong answer (0)	
2(ii)	Difference between Protista and Monera	Any three correct differences like Prokaryote & Eukaryote, unicellular/multi cellular, Presence/composition of cell wall, examples etc. (3)	Any two correct differences (2)	Any one correct difference (1)	Some relevant information (0.5)	Wrong answer (0)	
2(iii)	Diagram labelling	Three correct labelling A=Mitochondria B=Endoplasmic reticulum C=Vacuole/vesicle (1.5)	Any two correct labelling (1)	Any one correct labelling (0.5)	Wrong answer (0)		
	Function of labelled parts	correct function of each labelled part (1.5)	correct function of any two labelled part (1)	correct function of any one labelled part (0.5)	Wrong answer (0)		
2(iv)	Comparison of simple & compound tissues	Any two correct comparisons i.e. Differences or Similarities (2)	Any one correct comparison i.e. Difference or Similarity (1)	Some relevant information (0.5)	Wrong answer (0)		
	Examples of simple & compound tissues	One correct example of each (1)	Any one correct example (0.5)	Wrong answer (0)			
2(v)	Cytokinesis in animal cell	Correct description like pinching of cell membrane/furrow formation, formation of two daughter cells etc. (3)	Partially correct description mentioning any two criteria OR labelled diagram (2)	Some relevant information (1)	Wrong answer (0)		
2(vi)	Events of Prophase-I of Meiosis	Any three correct events in prophase-I like synapsis, bivalent/tetrad formation chiasmata, crossing over, chromatin condensation etc. (3)	Any two correct events of prophase-I (2)	Any one correct event of prophase-I (1)	Some relevant information (0.5)	Wrong answer (0)	

2(vii)	Enzymes required in small quantity	Correct description e.g. repeatedly used/ not consumed , not changed (3)	Any one correct description (1.5)	Some relevant information (1)	Wrong answer (0)		
2(viii)	Comparison of photosynthesis with respiration	Any three correct comparisons i.e similarities / differences , (3)	Any two correct comparisons i.e similarities / differences, (2)	Any one correct comparison, i.e similarity /difference (1)	Some relevant information (0.5)	Wrong answer (0)	
2(ix)	Light reaction	Correct description i.e requires light, breakdown of water/photolysis, formation of NADPH & ATP etc. (3)	Partially correct description with any two criteria (2)	Some relevant information (1)	Wrong answer (0)		
2(x)	Effects of Starvation	Any three effects i.e weakness ,loss of weight, slow growth, loss of immunity etc.(1.5)	Any two effects (1)	Some relevant information (0.5)	Wrong answer (0)		
	Effects of obesity	Any Three effects i.e overweight .fat storage, respiratory & cardiac problems, diabetes etc. (1.5)	Any two effects (1)	Some relevant information (0.5)	Wrong answer (0)		
2(xi)	Functions of oral cavity in digestion	Any Three correct functions i.e selection, lubrication ,chewing, grinding, physical & chemical digestion, bolus formation etc. (3)	Any two correct functions (2)	Any one correct function(1)	Some relevant information (0.5)	Wrong answer (0)	
2(xii)	Sources of vitamin D	Any three sources like milk, butter ,ghee, oil, cheese etc. (1.5)	Any two correct sources (1)	Any one correct source (0.5)	Wrong answer (0)		
	diseases of vitamin D deficiency	Any three diseases like Rickets, osteomalacia, osteoporosis, muscle fatigue etc. (1.5)	Any two correct diseases (1)	Any one correct disease (0.5)	Wrong answer (0)		

2(xiii)	Significance of transpiration	Any three correct significances like transport of water, minerals, cooling effect, support, gaseous exchange etc. (3)	Any two correct significances (2)	Any one correct significance (1)	Some relevant information (0.5)	Wrong answer (0)	
2(xiv)	Symptoms of leukemia	Any four correct symptoms like weight loss, anaemia, nose bleeding, bone pain, fatigue etc. (2)	Any three correct symptoms (1.5)	Any two correct symptoms (1)	Any one correct symptom (0.5)	Wrong answer (0)	
	Treatment of leukemia	Any two correct treatments like chemotherapy, bone marrow transplant & blood transfusion (1)	Any one correct treatment (0.5)	Wrong answer (0)			
2(xv)	Flow chart for pulmonary and systemic circulation	Correct flow chart with four labelling and directions (3)	Correct flow chart with any two/three labelling and directions (2)	Partially correct flow chart (1)	Wrong answer (0)		
3(a)	Tissues level organisation	Correct description with example (2)	Only description OR example (1)	Some relevant information (0.5)	Wrong answer (0)		
	Organ system level organisation	Correct description with example (2)	Only description OR example (1)	Some relevant information (0.5)	Wrong answer (0)		
	Organism level organisation	Correct description with example (2)	Only description OR example (1)	Some relevant information (0.5)	Wrong answer (0)		
3(b)	Aims & Principles of classification	Any four correct aims/principles i.e identification, naming, making natural groups, evolutionary relationship of organisms, comparing specimen with known organisms, fixing best position of organisms in classification etc. (4)	Any three correct aims/principles (3)	Any two correct aims/principles (2)	Any one correct aims/principles (1)	Wrong answer (0)	

4 (a)	Significance of meiosis in number of chromosomes	Correct description i.e number of chromosomes remains constant in next generation (2.5)	Partially correct description (1.5)	Some relevant information (1)	Wrong answer (0)		
	Significance of meiosis in variations	Correct description i.e crossing over and random fusion of gametes produce variation in next generation (2.5)	Partially correct description with any one criterion. (1.5)	Some relevant information (1)	Wrong answer (0)		
4 (b)	Mechanism of enzyme action	Correct description of mechanism (1)	Some relevant information (0.5)	Wrong answer (0)			
	Lock-and-Key model	Correct description of Lock-and-Key model like rigid active site, not in changes in reaction, highly specific (3)	Partially correct description of Lock-n-Key model (2)	Some relevant information (1)	Wrong answer (0)		
	Diagram of Lock-n-Key model	Correct diagram with labeling (1)	Partially correct diagram and labeling(0.5)	Wrong answer (0)			
5 (a)	Functions of red blood cells	One correct function (1)	Some relevant information (0.5)	Wrong answer (0)			
	Functions of white blood cells	Any Two correct functions (3)	One correct function (1.5)	Some relevant information (0.5)	Wrong answer (0)		
	Functions of platelets	One correct function (1)	Some relevant information (0.5)	Wrong answer (0)			
5 (b)	Internal structure of root	Correct diagram with any four correct labeling (4)	Correct diagram with two correct labeling (3)	Correct diagram/ partially correct diagram with two correct labeling (2)	Partially Correct diagram with any correct labeling (1)	Some relevant information (0.5)	Wrong answer (0)
	Role in transportation of water and ions	Correct description (1)	Partially correct (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.**