

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

Q.# /Part #	Criteria	Level 1 (Marks)	Level 2(Marks)	Level 3 (Marks)	Level 4 (Marks)	Level 5 (Marks)	Level 6 (Marks)
2(i)	Characteristics of a good hypothesis	Three correct characteristics (3)	Any two correct characteristics (2)	Any one correct characteristic (1)	Wrong answer (0)		
2(ii)	Difference between Fungi and Plantae	Three correct differences like cell wall composition, mode of nutrition, examples etc. (3)	Any two correct differences (2)	Any one correct difference (1)	Some relevant information (0.5)	Wrong answer (0)	
2(iii)	Label diagram	Three correct labelling A= upper epidermis B= spongy mesophyll cell C= guard cell/stomata (1.5)	Any two correct labelling (1)	Any one correct labelling (0.5)	Wrong answer (0)		
	Write functions of these parts	Correct functions of each labelled part (1.5)	Correct functions of any two labelled parts (1)	Correct function of any one labelled parts (0.5)	Wrong answer (0)		
2(iv)	Difference between Meristematic and permanent tissues	Any three correct differences (Like thick/thin cell wall, dividing/ non-dividing & differentiated/ undifferentiated, large vacuole /small vacuole etc.) (3)	Any two correct differences (2)	Any one correct difference (1)	Some relevant information (0.5)	Wrong answer (0)	
2(v)	Cytokinesis in plants	Correct description like Golgi vesicles cell plate / phragmoplast, two cell formation etc (3)	Partially correct description OR labelled diagram (2)	Some relevant information (1)	Wrong answer (0)		
2(vi)	Crossing over in Prophase I of Meiosis	Correct description mentioning chiasmata/crosslinks, exchange of segment of non sister chromatids (3)	Partially correct description OR properly labelled diagram (2)	Some relevant information (1)	Wrong answer (0)		
2(vii)	Define metabolism	Correct definition (1)	Partially correct definition (0.5)	Wrong answer (0)			
	Difference between anabolism and catabolism	Any two correct differences (2)	Any one correct difference (1)	Wrong answer (0)			
2(viii)	Importance of anaerobic respiration	Any three correct points of importance like survival of anaerobic organisms,	Any two correct points of importance (2)	Any one correct importance (1)	Wrong answer (0)		

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		emergency supply of energy to aerobic organisms, early life origin by anaerobic respiration, fermentation etc. (3)					
2(ix)	Naming of dark reaction	Correct description of the reason i.e. no light required/ used, <b>OR</b> use of NADPH, CO <sub>2</sub> & ATP, named as Calvin cycle, takes place in stroma (3)	Partially correct description (2)	Some relevant information (1)	Wrong answer (0)		
2(x)	Causes of marasmus	Correct description (1.5)	Partially correct description (1)	Some relevant information (0.5)	Wrong answer (0)		
	Causes of kwashiorkor	Correct description (1.5)	Partially correct description (1)	Some relevant information (0.5)	Wrong answer (0)		
2(xi)	Difference between digestion & assimilation	Any two correct differences (3)	Any one correct difference (1.5)	Some relevant information (1)	Wrong answer (0)		
2(xii)	Sources of vitamin A	Any three correct sources like carrot, spinach, fish, butter, eggs, etc. (1.5)	Any two correct sources (1)	Any one correct source (0.5)	Wrong answer (0)		
	Functions of vitamin A	Any three correct functions like helps in night vision, hair growth, skin care etc. (1.5)	Any two correct functions (1)	Any one correct function (0.5)	Wrong answer (0)		
2(xiii)	Relation of transpiration with stomatal opening and closing	Correct description like rates of transpiration increases/decreases with opening and closing of stomata (3)	Partially correct description (2)	Some relevant information (1)	Wrong answer (0)		
2(xiv)	Symptoms of thalassemia	Writing/Describing any two correct symptoms like spleen enlargement, low oxygen transport, anemia, skin and bone changes etc. (2)	Writing/Describing any one correct symptom (1)	Wrong answer (0)			
	Treatment/Prevention of thalassemia	Correct response (1)	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)	Cellular organization of Amoeba	Correct description like unicellular organization with any one characteristic (2)	Partially correct description / anyone characteristic (1)	Some relevant information (0.5)	Wrong answer (0)		
	Cellular organization of Volvox	Correct description i.e. colonial organization, any one characteristic like, many cells live together but don't depend on each other/ no division of labour etc. (2)	Partially correct description / any one characteristic (1)	Some relevant information (0.5)	Wrong answer (0)		
	Cellular organization of Mustard Plant	Correct description i.e. multicellular organization, any one characteristic like, division of labour, complex body, organ & organ system etc. (2)	Partially correct description / any one characteristic (1)	Some relevant information (0.5)	Wrong answer (0)		
3(b)	Importance of biodiversity	Correct description of any four points of importance like maintenance of: Ecosystem, water & soil Quality, pest control, pollination, food provision etc.(4)	Correct description of any three points of importance (3)	Correct description of any two points of importance (2)	Correct description of any one point of importance (1)	Some relevant information (0.5)	Wrong answer (0)
4 (a)	Difference between mitosis and meiosis	Any four correct differences (4)	Any three correct differences (3)	Any two correct differences (2)	Any one correct difference (1)	Wrong answer (0)	
	Diagram	Any two Correct relevant diagram showing difference (2)	Any one correct relevant diagram showing difference (1)	Wrong answer (0)			
4 (b)	Effect of pH on enzyme activity	Correct description with graph/example (2)	Partially correct description without graph/example (1)	Some relevant information (0.5)	Wrong answer (0)		
	Effect of temperature on enzyme activity	Correct description with graph/example (2)	Partially correct description without graph/example (1)	Some relevant information (0.5)	Wrong answer (0)		
5 (a)	Digestive enzymes with	Correct names of any five	Correct names of any	Correct names of any	Correct	Correct	Wrong

	their substrate and products	enzymes their substrates and respective products: like amylase, pepsin, trypsin, lipase, maltase, sucrase etc. (5)	four enzymes their substrates and respective products (4)	three enzymes their substrates and respective products (3)	names of any two enzymes their substrates and respective products (2)	names of any one enzyme their substrates and respective products (1)	answer (0)
5 (b)	Structure of Artery	Correct description mentioning number, names and correct sequence of layers, etc (3)	Partially correct description (2)	Some relevant information (1)	Wrong answer (0)		
	Function of Artery	Correct function of artery (1)	Partially correct (0.5)	Wrong answer (0)			
	Diagram	Correct labeled diagram (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.**