Marking Scheme

Class XI

SECTION A			
Sl. No.	QUESTION	MARK S	
1	Glycolysis is also known as a.EMP pathway	1	
2	Protons accumulate on the in mitochondria	1	
2	b.Intermembrane space	1	
3	Acetyl CoA forms a 6-C compound after combining with d.Oxaloacetic acid	1	
4	Coconut milk contains a cytokinin called which promotes plant growth. d. Zeatin	1	
5	is a plant hormone generally present in the gaseous state a. Ethylene	1	
6	tissues synthesize natural cytokinin's b.Rapidly dividing	1	
7	Seed dormancy is triggered by b.Abscisic acid	1	
8	c	1	
9	a	1	
	SECTION B		
10	 -The complete oxidation of pyruvate by the stepwise removal of all the hydrogen atoms, leaving three molecules of CO2. - The passing on of the electrons removed as part of the hydrogen atoms to molecular O2 with simultaneous synthesis of ATP. 	1+1	
11	Reason -In the respiratory pathway different substrates would enter if they were to be respired and used to derive energy-catabolism	1⁄2	
	-compounds that would be withdrawn from the respiratory pathway for the synthesis of the said substratesanabolism	1⁄2	
	any one example.	1	
10	SECTION C	1	
12	Answer the following a) to inhibit apical dominance and promote lateral growth in both tea plantations and hedge-making.	1	
	b) differentiation -cells losing their capacity to divide +taking a definite structure & function	1⁄2	

	dedifferentiation- differentiated cells regaining their capacity to divide c) stress hormone-ABA, released to close stomata under water stress condition	¹ / ₂ ¹ / ₂ +1/2
13	a) ETS b) Inner Mitochondrial membrane complex 5 -ATP synthase (complex V) for the production of ATP from ADP and inorganic phosphate c) 3molecules of ATP Diagram-1 4 important markings-2	1/2 1/2 1/2 1/2
14	a) A -Arithmetic & B-Geometric b) limited resources c) A -Linear curve & B-sigmoid curve. Or c) any two points	1 1 1+1 1+1
	SECTION E	
15	a) TCA Cycle b)	4
	$\begin{array}{c} \text{Ng}^{2+} \\ \text{Pyruvic acid} + \text{CoA} + \text{NAD}^{+} \\ \hline \text{Pyruvate dehydrogenase} \\ \end{array} \rightarrow \text{Acetyl CoA} + \text{CO}_{2} + \text{NADH} + \text{H}^{+} \\ \end{array}$	-
	Or a) Glycolysis- one molecule glucose to two molecules of pyruvic acid + cell	2
	cytoplasm b) flow chart- with any 6 steps	3