MDCAT Biology Chapter 2 Bio-energetic Online Test

Sr	Questions	Answers Choice
1	It contains many types of pigment molecules	A. Antenna complex B. Reaction centre C. Primary acceptor D. All
2	Which of the following statement is true for absorption spectra of photosynthesis	A. Chlorophyll a and b have same absorption spectra B. Chlorophyll a and b have different absorption spectra C. Chlorophyll a and carotenoids have same absorption spectra D. Chlorophyll b and carotenoids have same absorption spectra
3	Spectrum which shows the effectiveness of absorbed light	A. Absorption B. Action C. Emission D. Affective
4	Which of the following is incorrect about action spectrum	A. It tells effectiveness of light B. Valley is broad C. Peaks are broad D. It is indicated by consumption of CO2
5	When equal intensities of light are given, photosynthesis is maximum in ___ part	A. Blue B. Orange C. Red D. Violet
6	Pick up the correct one related to tail of chlorophyll	A. Hydrophilic B. Light absorbing C. Porphyrin D. Hydrophobic
7	Color of chlorophyll b is	A. Blue green B. Yellow green C. Orange red D. Yellow orange
8	Light absorbing part of chlorophyll is	A. Phytol B. Magnesium C. Pyrrole D. Porphyrin
9	Where Photophosphorylation takes place in chloroplast?	A. Stroma B. Inner membrane C. Outer membrane D. Granum
10	Final acceptor of electrons in non cyclic phosphorylation is	A. Cyt. Complex B. ATP C. Photosytem I D. NADP
11	Iron containing proteins which act as carriers in ETC	A. Plastoquinine B. Cyt. complex C. Plastocyanin D. None
12	Which of the following is not formed during non cyclic phosphorylation	A. ATP B. NADPH C. Oxygen D. G3P
13	Which of the following is not absent in cyclic electron flow	A. Photolysis B. Phosphorylation C. NADP reductase D. PS II
14	What actually happens in light dependent reaction	A. ATP synthesis, oxidation of NADP B. ATP hydrolysis, oxidation of NADP C. ATP synthesis, reduction of NADP D. ATP hydrolysis, reduction of NADP

15	Components of electron transport chain that works in Z-scheme are located	A. In stroma B. In thylakoid membranes C. In lumen of thylakoids D. Outside thylakoids
16	Light dependent reaction takes place in ___ of chloroplasts	A. Stroma B. Envelope C. Thylakoids D. Lumen
17	What happens in the light phase of photosynthesis?	A. ADP is hydrolyzed and NADP is oxidized B. ATP is synthesized by photophosphorylation and NADP is reduced C. ATP is hydrolyzed and NADPH is oxidized D. ADP is hydrolyzed and NADP is reduced
18	Splitting of water in sunlight is called	A. Lysis B. Photolysis C. Condensation D. Hydrolysis
19	Which of the following is a CO2 acceptor	A. Rubisco B. Water C. RuBP D. Citrate
20	Number of ATPs required to phosphorylate RuP molecules in calvin cycle	A. 3 B. 5 C. 6 D. 9
21	Very first product formed from carbon fixation in a calvin cycle	A. Unstable 3C compound B. Unstable 6 Carbon compound C. Stable 3C compound D. Stable 6C compound
22	How many NADPH are required for the synthesis of one molecule of glucose	A. 3 B. 6 C. 12 D. 18
23	The most abundant protein in nature is	A. RuBP B. Rubisco C. Ribulose bisphosphate carboxylase D. Both B and C
24	Which of the following is correct direction showing the pumping of protons in chemiosmosis	A. From stroma to lumen in chloroplast B. From matrix to intermembrane space in mitochondria C. From intermembrane space to matrix in mitochondria D. Both A and B
25	How much energy present in chemical bonds of glucose converted into ATP	A. 1% B. 2% C. 5% D. 10%
26	First step of preparatory phase of glycolysis is	A. Dehydration B. Decarboxylation C. Phosphorylation D. Oxidation
27	Oxidative phase of glycolysis starts with the dehydrogenation of	A. G3P B. DHAP C. Both D. NADH
28	In glycolysis 2PG is converted to PEP by	A. Dehydration B. Decarboxylation C. Phosphorylation D. Oxidation
29	Which of the following occurs in the first step of payoff phase during glycolysis	A. Reduction of 1 NAD B. Oxidation of 2 NAD C. Reduction of 2 NAD D. Oxidation of 1 NAD

		B. Oxidation of FADH
30	PEP is converted to ___ by removal of phosphate	A. Enol pyruvate B. Pyruvate C. Glyceraldehyde D. 3PG
31	In Glycolysis the net gain is 2 ATP and 2 molecules of	A. NADH₂ B. FADH₂ C. FMNH₂ D. FAD
32	How many molecules of ATP would be utilized for phosphorylation of one glucose molecule during glycolysis?	A. Five B. Four C. Three D. Two
33	Which part of mitochondria is the site of link reaction and kreb's cycle and contains the enzymes needed for these reactions?	A. Outer membrane B. Matrix C. Inner membrane D. Crista
34	In krebs cycle, oxidation takes place in the formation of ___ without decarboxylation	A. Succinate B. Ketoglutarate C. Malate D. Fumrate
35	In Krebs cycle hydration occurs during the conversion of	A. Citrate into isocitrate B. Malate into fumarate C. Citrate into malate D. Fumarate into malate
36	Number of NADH molecules formed in Krebs cycle starting from one molecule of glucose	A. 6 B. 3 C. 2 D. 1
37	Indirect ATP is formed during the production of ___ in krebs cycle	A. Isocitrate B. Succinate C. Citrate D. Malate
38	Pick up 5 carbon compound	A. Oxaloacetate B. RuBP C. Ketoglutarate D. Both b and c
39	Which of the following oxidizes malate to oxaloacetate in kreb's cycle?	A. ATP B. NADP+ C. NAD+ D. FAD
40	It is universal hydrogen acceptor	A. ATP B. FMN C. CoA D. NAD
41	Most of the energy in the cell is liberated by oxidation of carbohydrates when	A. Glucose is converted intoalcohol and CO2 B. Sugar is converted into pyruvic acid C. Pyruvic acid is converted into CO₂ and H₂O D. Pyruvic acid is converted into CoA
42	The final acceptor of electrons in respiratory chain is	A. Cyt. a B. Cyt. a3 C. Water D. Oxygen
43	In a respiratory chain, each NADH produce ____ATPs	A. 1 B. 2 C. 3 D. 4
		A. 38

44	Number of ATPs produced by aerobic respiration in bacteria	B. 36 C. 34 D. 32
45	Cytochrome b is oxidized by ___ in respiratory chain	A. Coenzyme Q B. Cytochrome c C. Cytochrome a D. Oxygen
46	The site for oxidative phosphorylation in mitochondria	A. Mitochondrial matrix B. Outer compartment C. F1 particles D. Cristae
47	Components of respiratory electron transport chain are	A. 2 B. 3 C. 4 D. 5
48	Fermentation is	A. Incomplete oxidation of proteins B. Complete oxidation of carbohydrates C. Aerobic respiration D. Incomplete oxidation of carbohydrates
49	In this process a carbon dioxide molecule is released	A. Lactic acid fermentation B. Alcoholic fermentation C. Glycolysis D. Hydrolysis of glycogen
50	In this process pyruvic acid is not used as substrate	A. Alcoholic fermentation B. Calvin cycle C. Aerobic respiration D. Lactic acid fermentation