

73. Name (initials) the 5 carbon sugar which picks up CO₂ as the 1st step of the light independent reactions.

- a) RuBP
- b) Glucose
- c) PGAL
- d) PGA

74. During the light independent reactions, what must be added to PGA to convert it to PGAL?

- a) electrons
- b) protons
- c) energized electrons
- d) energized electrons & protons.

75. What does the enzyme Rubisco, also known as RUBP carboxylase, do during the light independent reactions?

76. What term means the stacks of thylakoids found within the chloroplast?

77. How many ATP molecules does noncyclic photophosphorylation make?

- a) none
- b) 1
- c) 2
- d) 3
- e) 4

78. How many ATO molecules does cyclic photophosphorylation make during 1 cycle?

- a) none
- b) 1
- c) 2
- d) 3
- e) 4

79. State the complete balanced equation for photosynthesis.

80. List the wavelength (# of nm) of light that Photosystem II uses for its reaction center.

- a) 660 nm
- b) 680 nm
- c) 700 nm
- d) 720 nm

81. List the wavelength (# of nm) of light that Photosystem I uses for its reaction center.

- a) 660 nm
- b) 680 nm
- c) 700 nm
- d) 720 nm

82. List 2 products of the light independent reactions that must travel back to the light dependent reactions to keep the latter reactions going.

- a) ATP + NADH
- b) ATP + NADPH
- c) ADP + NADP
- d) 6CO₂ + 6H₂O

83. 2 products of the light dependent reactions that carry energy to the light independent reactions are:

- a) ATP + NADPH
- b) ADP + NADP
- c) ADP + NAD
- d) ATP + NADH

84. Which term means the addition of inorganic carbon dioxide onto organic RuBP during the light independent reactions?

- a) carbon fixation
- b) carbon dioxide fixation
- c) oxygen fixation
- d) carbon oxidation