

BIOC1142: Molecules of Life Worksheet

Name:

The total worksheet is worth 40 points.

A. Carbohydrates

Complete the following table (20 points)

Carbohydrate	Structural Component	Role in Polymeric/Other Molecules
Starch	a carbohydrate consisting of a large number of glucose units joined by glycosidic bonds	Produced by most green plants as an energy store.
Glycogen	a multibranched polysaccharide of glucose that serves as a form of energy storage in animals and fungi	main storage form of glucose in the body
Cellulose	a rigid, fibrous, unbranched polysaccharide consisting of β -D-glucopyranose units and forming the structure of most plant cell walls and of plant cells.	the primary cell wall of green plants, many forms of algae and the component
Chitin	A polymer of nitrogen-containing polysaccharide (N-acetylglucosamine) forming a tough, protective covering of structural support in certain organisms.	which makes up the cell walls of fungi and exoskeleton of insects.
Peptidoglycan	is a polymer consisting of sugars and amino acids that forms a mesh-like layer outside the plasma membrane of all bacteria forming the cell wall.	forming layer and providing structure

B. Lipids

Complete the table below - (8 points)

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