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| Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

MACROMOLECULES

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1S |  |  | 2S |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  T |  | 3C |  A |  R |  B |  O |  H |  Y |  D |  R |  A |  T |  E |  |
|  |  |  |  |  |  |  |  |  | 4P |  |  |  |  |  |  A |  |  |  T |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  R |  |  |  |  |  |  R |  |  |  U |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | 5P |  O |  L |  Y |  S |  A |  C |  C |  H |  A |  R |  I |  D |  E |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  T |  |  |  |  |  |  H |  |  |  A |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | 6P |  O |  L |  Y |  M |  E |  R |  |  |  |  |  |  |  |  T |  | 7G |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  I |  | 8M |  |  |  | 9F |  |  |  E |  |  L |  | 10A |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | 11U |  N |  S |  A |  T |  U |  R |  A |  T |  E |  D |  |  Y |  |  C |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | 12R |  |  |  |  C |  |  |  |  T |  |  |  |  |  C |  |  T |  |  |  |  |  | 13P |  |
|  |  |  |  |  | 14M |  O |  N |  O |  M |  E |  R |  |  |  |  T |  |  | 15N |  |  E |  |  I |  |  |  |  |  |  H |  |
|  |  |  |  |  |  |  |  A |  |  |  |  O |  | 16S |  |  Y |  |  |  U |  |  R |  |  V |  |  |  |  |  |  O |  |
|  |  |  |  |  |  |  |  |  |  |  |  M |  |  U |  |  A |  |  |  C |  |  O |  |  E |  |  |  |  |  |  S |  |
|  |  |  |  |  |  |  |  |  |  |  |  O |  |  B |  | 17C |  E |  L |  L |  U |  L |  O |  S |  E |  |  |  |  |  P |  |
|  |  |  |  |  |  |  | 18H |  |  |  |  L |  |  S |  |  I |  |  |  E |  |  |  |  I |  |  | 19D |  |  |  H |  |
|  |  |  |  |  |  |  |  B |  |  | 20P |  E |  P |  T |  I |  D |  E |  B |  O |  N |  D |  | 21T |  R |  A |  N |  S |  F |  A |  T |
|  |  |  |  |  |  |  |  O |  |  |  |  C |  |  R |  |  S |  |  |  T |  |  |  |  E |  |  |  A |  |  |  T |  |
| 22G |  L |  Y |  C |  O |  G |  E |  N |  |  |  |  U |  |  A |  |  |  | 23L |  I |  P |  I |  D |  |  |  |  |  |  |  E |  |
|  |  |  |  |  |  |  |  D |  |  |  |  L |  |  T |  |  |  |  |  D |  |  |  | 24N |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 25R |  I |  B |  O |  S |  E |  | 26E |  N |  Z |  Y |  M |  E |  |  |  |  U |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  N |  |  |  |  |  |  |  |  |  |  |  S |  |  |  |  C |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  G |  |  |  |  |  |  |  | 27A |  |  |  |  |  |  |  L |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | 28O |  R |  G |  A |  N |  I |  C |  M |  O |  L |  E |  C |  U |  L |  E |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  I |  |  |  |  |  |  |  I |  |  |  |  |  |  |  |
|  |  |  |  | 29A |  C |  T |  I |  V |  A |  T |  I |  O |  N |  E |  N |  E |  R |  G |  Y |  |  |  C |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  O |  |  |  |  |  |  |  A |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 30M |  O |  N |  O |  S |  A |  C |  C |  H |  A |  R |  I |  D |  E |  |  |  C |  |  |  |  |  |  |  |
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| **Across****3.** biological molecule consisting of carbon, hydrogen and oxygen atoms, usually with a hydrogen–oxygen atom ratio of 2:1**5.**  polymeric carbohydrate molecules composed of long chains of monosaccharide units bound together by glycosidic linkages and on hydrolysis give the constituent monosaccharides or oligosaccharides. **6.** a substance that has a molecular structure consisting chiefly or entirely of a large number of similar units bonded toget many synthetic organic materials **11.**  having carbon–carbon double or triple bonds and therefore not containing the greatest possible number of hydrogen atoms for the number of carbons.**14.**  a molecule that may bind chemically or supramolecularly to other molecules to form a polymer **17.** an insoluble substance that is the main constituent of plant cell walls and of vegetable fibers such as cotton.**20.** covalent chemical bond formed between two amino acid molecules.**21.**  uncommon in nature but became commonly produced industrially from vegetable fats for use in margarine, snack food, packaged baked goods and frying fast food **22.** a multibranched polysaccharide of glucose that serves as a form of energy storage in animals and fungi.**23.** a group of naturally occurring molecules that include fats, waxes, sterols, fat-soluble vitamins, monoglycerides, diglycerides, triglycerides, phospholipids, and others**25.** carbohydrate with the formula C5H10O5;**26.**  macromolecular biological catalysts**28.** An organic compound is any member of a large class of gaseous, liquid, or solid chemical compounds whose molecules contain carbon.**29.** minimum energy which must be available to a chemical system with potential reactants to result in a chemical reaction. **30.**  called simple sugars | **Down****1.** amylum is a polymeric carbohydrate consisting of a large number of glucose units joined by glycosidic bonds**2.** holding as much water or moisture as can be absorbed; thoroughly soaked.**4.** large biomolecules, or macromolecules, consisting of one or more long chains of amino acid residues.**7.** simple polyol compound. It is a colorless, odorless, viscous liquid that is sweet-tasting and non-toxic. **8.**  large molecule, such as protein, commonly created by polymerization of smaller subunits **9.** is a carboxylic acid with a long aliphatic chain, which is either saturated or unsaturated**10.**  the region of an enzyme where substrate molecules bind and undergo a chemical reaction.**12.** Ribonucleic acid is a polymeric molecule implicated in various biological roles in coding, decoding, regulation, and expression of genes**13.**  inorganic chemical and a salt of phosphoric acid.**15.** organic molecules that serve as the monomers**16.**  surface on which a plant or animal lives**18.** A hydrogen bond is the electrostatic attraction between polar groups that occurs when a hydrogen (H) atom bound to a highly electronegative atom such as nitrogen (N), oxygen (O) or fluorine (F) experiences attraction to some other nearby highly electronegative atom.**19.** Deoxyribonucleic acid is a molecule that carries the genetic instructions used in the growth, development, functioning and reproduction of all known living organisms and many viruses**24.**  biopolymers, or large biomolecules, essential for all known forms of life. **27.** biologically important organic compounds containing amine and carboxylic acid functional groups, |