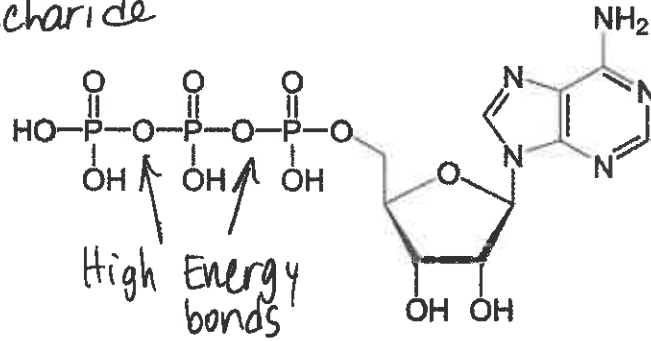
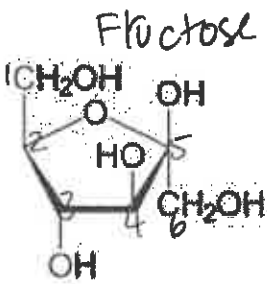


BIOLOGICAL MOLECULES
REVIEW

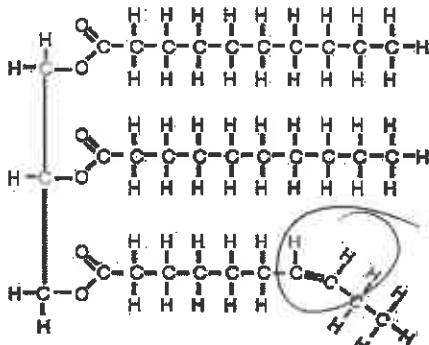
Label the following words on the given diagrams. Words can be used multiple times as needed.

Phospholipid	Dipeptide	Peptide Bond	Triglyceride	DNA
Amino Acid	Disaccharide	Hexose	Pentose	Starch
High Energy Bond	Unsaturated Fatty Acid	Saturated Fatty Acid	Hydrogen Bonds	Adenosine Triphosphate
Nucleotide	Amino Group	Neutral Fat	Testosterone	Tertiary Structure
Primary Protein	Synthesis Reaction	Secondary Protein	Quarternary Protein	Cellulose
Glucose	Carboxyl Group	Steroid	Nucleic Acid	Glycogen

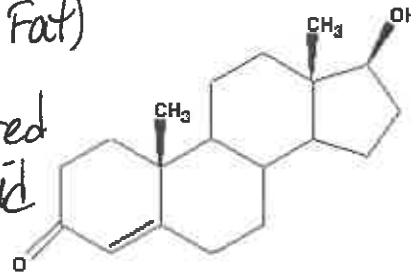
Hexose / monosaccharide



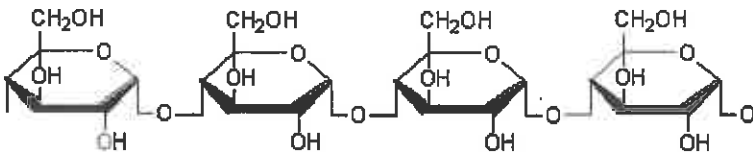
nucleotide
ATP



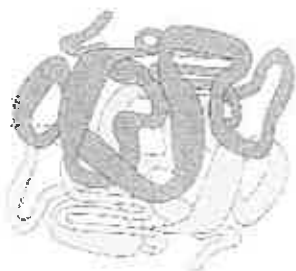
triglyceride
(Neutral Fat)
unsaturated fatty acid



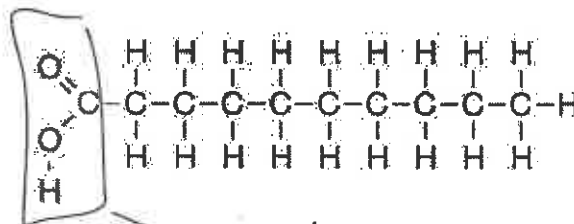
Steroid
Testosterone



Starch / Polysaccharide

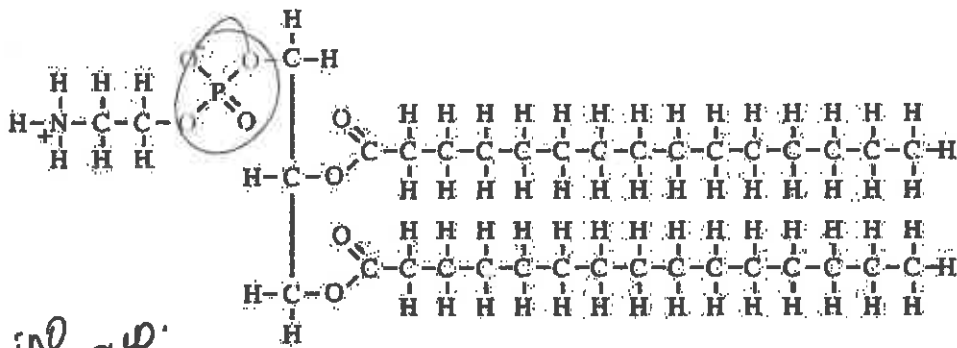


Quarternary
Protein
Structure



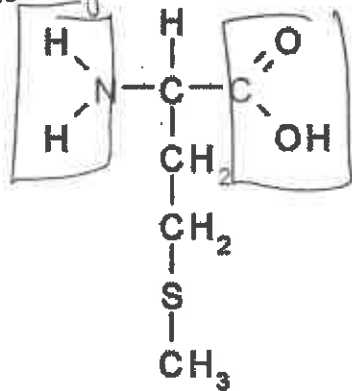
saturated
Fatty
Acid

36 carboxyl group

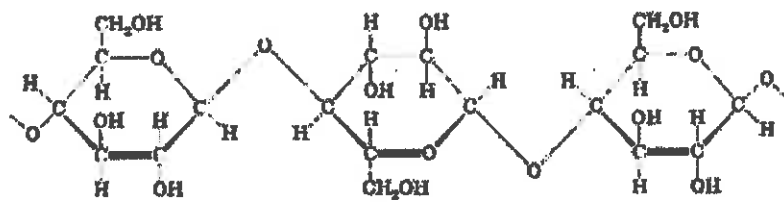


phospholipid

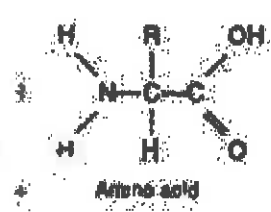
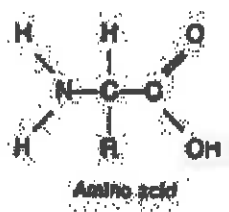
amino group



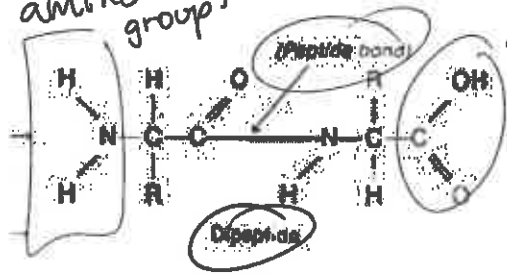
- amino acid
← carboxyl group



polysaccharide
cellulose



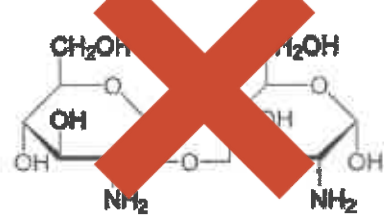
amino group



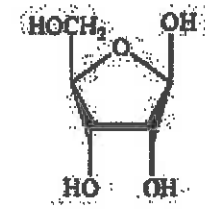
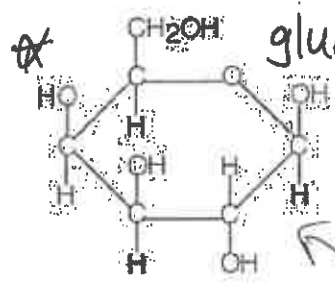
carboxyl
dehydration
synthesis



disaccharide

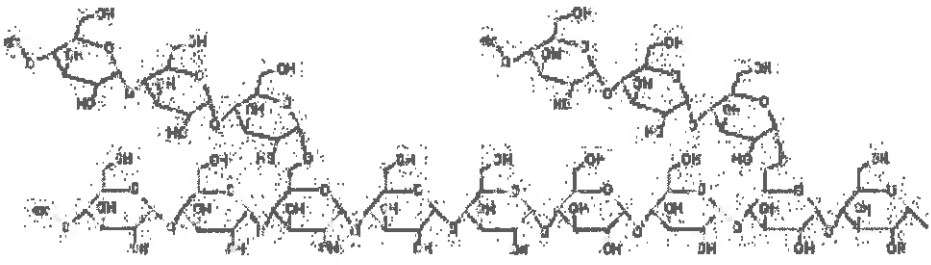


glucose



pentose

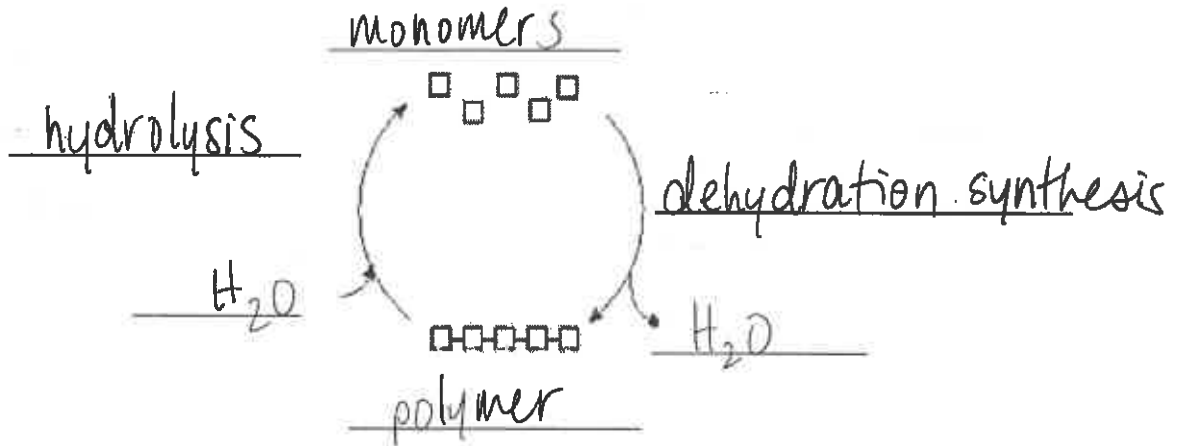
monosaccharide



polysaccharide
glycogen

BIOLOGICAL MOLECULES
 MINI REVIEW

1. Fill in the blanks in the figures and tables:
 a.

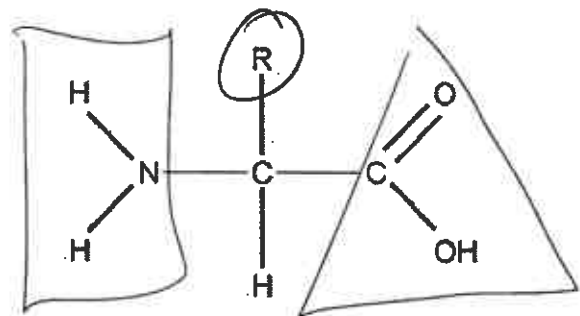


b.

UNIT MOLECULE	POLYMER
amino acid	Protein
Fatty Acid and Glycerol	Lipids
monosaccharides	Carbohydrate
Nucleotide	nucleic acid

c.

- Circle the "R" group
- Put a TRIANGLE around the acid group
- Put a BOX around the amino group

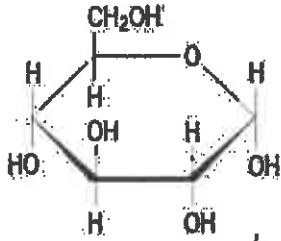


d.

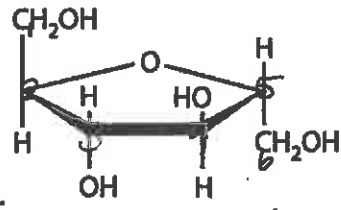
LEVEL	DESCRIPTION	TYPES OF BONDS
1. PRIMARY	linear sequence of amino acids	peptide
2. SECONDARY	α -helix, coil or β -pleated sheet	peptide, hydrogen bonds
3. TERTIARY	3-dimensional / Globular	peptide, hydrogen, covalent, ionic
4. QUARTERNARY	2 or more polypeptide chains linked together	" "

³⁴ together

e. List the possible names for these structures:



i. -monosaccharides -sugar
-glucose -hexose



ii. -monosaccharide
-hexose
-fructose

identify *

f. Polysaccharides

NAME	BRANCHES:	FOUND IN:
STARCH	few	plants
GLYCOGEN	many/lots	animals
CELLULOSE	none	plant cell walls

g. How are the following different?

i. Saturated and unsaturated fats?

no double bonds → contain double bonds between carbon atoms

ii. Lipids and steroids?

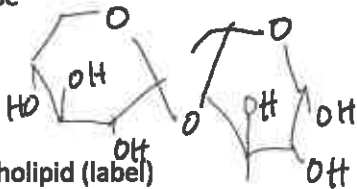
hydrocarbons → 4 interconnected carbon rings

iii. Neutral fats and phospholipids?

glycerol + 3 Fatty Acids → glycerol + 2 Fatty Acids + phosphate group

h. Draw the following molecules:

i. Maltose



ii. Phospholipid (label)

O - phosphate head (polar)
- 2 fatty acid tails (non-polar)

iii. Nucleotide

