**A-level Biology – Year 11 transition work**

**Quick questions**

**Biological molecules**

1. The order in which the amino acids are arranged in a protein chain; (1)

2. Hydrogen bonds; (1)

3. e.g. glucose; fructose; (2)

4. Maltose; (1)

5. Any two from: e.g. starch, cellulose, glycogen; (2)

6. Carbon, hydrogen and oxygen; (1)

7. Every carbon atom in saturated fatty acid chains is joined by a single bond / unsaturated fatty acids have one or more double bond in their carbon chains; (1)

8. Triglycerides have three fatty acid chains attached to a glycerol molecule;

phospholipids have two fatty acid chains and a phosphate group attached to a glycerol molecule; (2)

9. Increase the rate/speed of biochemical reactions / act as a biological catalyst; (1)

10. The energy required to get a reaction started; (1)

**Total 13 marks**

**Examination questions**

**Q1.**

(a)     1.      A = *β* glucose;

B = Adenosine triphosphate;

*do not accept ATP*

**2**

(b)     1.      Saturated;

**1**

2.      Fatty acid;

**1**

(c)     1.      Peptide bond shown correctly;

2.      Rest of dipeptide structure shown correctly;

**2**

(d)      Water;

**1**

**[7]**

**Q2.**

(a)     P – glycerol

Q – fatty acid (chains)

*Accept phonetic spelling*

**2**

(b)     Ester (bond);

**1**

(c)     1.      (Mix / shake sample) with ethanol, then water;

*Sequence is important*

2.      White / milky (emulsion);

*Ignore cloudy*

*Reject precipitate*

**2**

**[5]**