Practice Question Set For A-Level
**Subject : Biology**
**Paper-1 Topic:1 Biological Molecules**

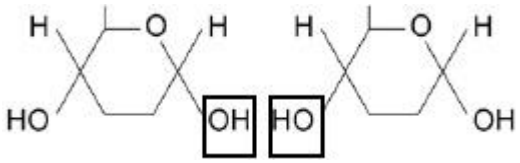
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**Name of the Student**:_____
**Max. Marks : 16 Marks** **Time : 16 Minutes**

Mark Schemes

Q1.

(a)




*Accept a box drawn around any OH and H from another OH*
*OR*
*Accept one box around two OHs*

**1**

(b) 1. Filter **and** dry (the precipitate);
*Accept: correct reference to evaporation **after** filtration*

2. Find mass/weight;

**2**

(c) 1. A = glucose **and** B = maltose;

2. Because **more** sugar/precipitate **after** hydrolysis/maltase action;
*Accept 'higher concentration of sugar' for 'more sugar'*
*Accept 'break down' for hydrolysis*

**2**

(d) 1. Quantitative
**OR**
(Colour change is) subjective;
*Accept: accurate/precise*

2. Standardises (the) method;

**1 max**

(e) 7.5 = 2 marks;;

$$\frac{1 + 0.5}{20} \times 100$$

If incorrect final answer, accept for 1 mark:

16.6 - 17 (cumulative percentage error of both measuring vessels)

$$\frac{1 + 0.5}{20} \times 100$$

**OR**

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0.075 – not a percentage

*Ignore: (plus or minus) in answer*

**OR**

$$\frac{1 + 0.5}{20}$$

(correct understanding, but not calculated)

**2**

**[8]**

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Q2.

(a) 1. Add biuret (reagent);

*Accept sodium hydroxide (solution) and copper sulphate (solution)*

*Reject addition of other incorrect chemicals*

2. (Positive result) purple/lilac/violet /mauve;

*Reject other colours*

*Ignore references to heating*

**2**

(b) Similarities

*2 max for similarities*

*Accept for three marks, a labelled diagram of a dipeptide showing $NH_2$/$NH_3^+$, COOH/$COO^-$ and different R groups.*

1. Amine/$NH_2$ (group at end);

*Accept amino/$NH_3^+$*

2. Carboxyl/COOH (group at end);

*Accept carboxylic / $COO^-$*

3. Two R groups;

4. All contain C **and** H **and** N **and** O;

*Accept examples of different R groups*

Difference

5. Variable/different R group(s);

**3**

(c) 1. Moved to negative (electrode) **because** positive(ly charged);

2. (Spots move) different distances/rates **because** (amino acids) different charge/mass;

*Accept size for mass.*

3. Two spots (not three) **because** (amino acids) same charge/mass
**OR**
One spot has 2 amino acids **because** (amino acids) same charge/mass;

*Accept size for mass.*

**3**

**[8]**

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