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Year 12 Chemistry Self-Assessment Topic 3: Organic and Biological Chemistry

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| **Learning Intention** | **Formative Test Question** | **Chapter Questions** | **Proficiency** | **Comments/questions** |
| Structural formulae | 12(a) | 70(a)  71(a) |  |  |
| Systematic names | 1(c) | - |  |  |
| Condensation reactions | 8(c) | - |  |  |
| Physical properties | 4, 5 | 70(b)  71(b)-(c) |  |  |
| Naming/drawing alcohols | 2(a), 6(a) | 72-76 |  |  |
| Oxidation of alcohols | 6(b) | 77-78 |  |  |
| Naming/drawing aldehydes/ketones | 1(a),(d) | 80-85 |  |  |
| Oxidation of aldehydes | 3 | 86-87 |  |  |
| Carbohydrates | 11(b) | 88, 91(a) |  |  |
| Saccharides | 11(a),(c)(i) | 89(a)-(b), (e)(1)  90  91(c) |  |  |
| Glucose | 11(c)(ii) | 91(b) |  |  |
| Naming/drawing carboxylic acids | 1(b), 2(b) | 92-94 |  |  |
| Carboxylic acids as acids | 10 | 95-99 |  |  |
| Naming/drawing amines | 1(f) | 100-103 |  |  |

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| Amines as bases | 12(c) | 104 |  |  |  |
| Naming/drawing esters | 1(e), 8(b) | 105-109 |  |  |  |
| Preparation of esters | 8(d) | 110 |  |  |  |
| Hydrolysis of esters | 8(a) | 111-112 |  |  |  |
| Drawing amides | 9(c) | 113-114 |  |  |  |
| Hydrolysis of amides | 12(d) | 115-116 |  |  |  |
| Drawing triglycerides | 8(e) | 117 |  |  |  |
| Hydrolysis of triglycerides | 7(b)(i) | 118-119 |  |  |  |
| Saturation of triglycerides | 7(a)(iii), 8(f) | 120-122 |  |  |  |
| Hydrogenation of triglycerides | 7(a)(i),(ii),(iv) | 123 |  |  |  |
| Micelles | 7(b)(ii) | 124 |  |  |  |
| Amino acids | 9(a) | - |  |  |  |
| Self-ionisation of amino acids | 12(b) | 125 |  |  |  |
| Formation of proteins | 9(b) | 126 |  |  |  |
| Spatial arrangement of proteins | 9(d)(i) | 127 |  |  |  |
| Biological function of proteins | 9(d)(ii)-(iii) | 128 |  |  |  |