Mark schemes

Q1.

(a) Any **two** from:

1. Galactose is a monosaccharide/monomer;

2. (Polysaccharide is a) carbohydrate polymer;

3. (Several) monosaccharides/monomers/galactose joined by condensation reactions

OR

(Several) monosaccharides/monomers/galactose joined by glycosidic bonds;

2 max

(b) 1. Lactose contains (alpha) glucose **and** GOS does not

OR

Lactose contains (alpha)glucose + galactose **and** GOS contains only galactose;

2. Lactose is a disaccharide **and** GOS is a polysaccharide;

3. Lactose has one glycosidic bond **and** GOS has many glycosidic bonds;

Accept 'more than one' for many

2 max

(c) 1. Active site (only) complementary to starch

OR

Active site not complementary to GOS;

Ignore 'hydrolysis'

2. (Due to) tertiary structure;

2

(d) 1. Provides galactose/sugar/monosaccharide;

2. (Bacteria use the galactose/sugar) for respiration;

3. (Bacteria use the galactose/sugar) for binary fission;

Reject 'glucose' for galactose/sugar once only

Accept (cell) division /replication/reproduction for binary fission

Reject mitosis;

3