

Multiple Choice Answers

Q8: D

Multiple Choice Answers

Q10: B

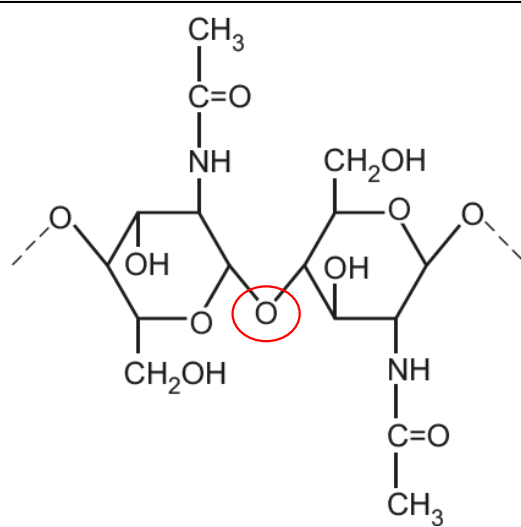
Q12: A

Multiple Choice Answers

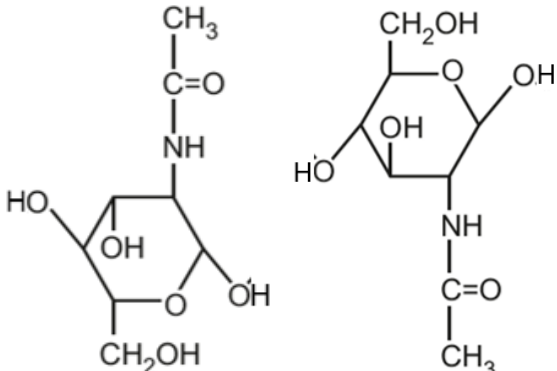
Q8: D

Q10: B

4(a)(i)



correct glycosidic bond circled ;

4(a)(ii)	 –OH group shown on the monomer where the glycosidic bond connected the two monomers (C1) ; –OH shown on C4 ;
4(b)	any four from: <i>ref. to</i> filtering helps prevent / AW, cholera ; filtering water removed copepods (with bacteria on surface) from water ; some bacteria were able pass through fabric / bacteria were found living free in water / some copepods were small enough to pass through fabric ; cholera transmission could be from, other sources / food ; people who filter water may have better personal hygiene ; A examples e.g. washing hands AVP ; e.g. differences in other water treatment methods e.g. boiling water

4(c)(i)	any one from: wash hands, qualified ; e.g. more frequently after, urination / defecation / using the toilet I non-scientific terms before preparing food before handling utensils thoroughly / with soap / antibacterial gel avoid eating, crops / food, grown with faeces used as fertiliser ; wash fruit / vegetable (in, uncontaminated / AW, water) ; cover food to prevent flies landing / kill flies before they land on food ; AVP ; e.g. don't share hand towels use disposable hand towels keep fingernails short
4(c)(ii)	any two from: <i>ref. to</i> active transport / <i>ref. to</i> efflux pumps ; <i>in correct context</i> tetracycline transported out of the cell ; AVP ; e.g. substance pumped out combined with tetracycline (membrane) enzyme that breaks down tetracycline before entry to cell
4(c)(iii)	any two from: vaccines may contain more than one antigen (so more than one type of antibody is present) ; multiple mutations are needed to evolve, immune evasion / described; vaccines given to people before infection so secondary immunity acts quickly to kill pathogen before mutations arise ; antibiotics used when person already infected so large population ; ora more likely to be a mutation which causes resistance ; ora antibiotics may target only one site in a bacterial cell ; antibiotics more likely to be misused ; AVP ; ;

1(a)(i)	1 Benedict's <u>and</u> at least 80 °C ;
1(a)(ii)	1 add acid <u>and</u> heat ; 2 add, sodium hydrogen carbonate / alkali ;
1(a)(iii)	1 heading for independent variable: sample / solution (before heading for dependent variable) ; 2 heading for dependent variable: colour / observation <u>and</u> reducing sugar, non-reducing sugar and starch ; 3 records correct observations for reducing sugar tests ; 4 records correct observations for non-reducing sugar tests ; 5 records correct observations for starch tests ;
1(a)(iv)	According to candidate's results: 1 two correct answers ; 2 four correct answers ;
1(a)(v)	1 biuret ; 2 purple ;
1(b)(i)	1 x-axis: time / hours <u>and</u> y-axis: concentration of sugars / μmol <u>and</u> lines labelled leaves and phloem sieve tubes ; 2 x-axis: 5 h to 2 cm <u>and</u> labelled at least every 2 cm <u>and</u> scale on y-axis: 0.1 μmol to 2 cm <u>and</u> labelled at least every 2 cm ; 3 correct plotting of points ; 4 plots joined with a thin line passing through all points ;
1(b)(ii)	Any one of: 1 concentration of sugars decreases for 8 hours and then increases ; 2 concentration of sugars in leaves is higher than in phloem over 24 hours ;
1(b)(iii)	<i>dark:</i> 1 sugars not made in the leaves so less sugar transported by, the phloem sieve tubes / translocation ; <i>light:</i> 2 sugars made in the leaves and, loaded into phloem sieve tubes / sugars move from leaves to phloem / sugars move by translocation ;
1(b)(iv)	1 uses 0.24 <u>and</u> percentage concentration of sugars at 20 hours ; 2 shows percentage concentration of sugars at 20 hours minus 0.24 divided by 0.24 <u>and</u> multiplied by 100 ;