

Multiple Choice Answers

Q12: C

Multiple Choice Answers

Q14: B

Q15: C

Q16: D

Multiple Choice Answers

Q16: D

Q17: A

Multiple Choice Answers

Q15: B

1(a)(i)	1 states 1%, 0.5%, 0.25% and 0.125% under the appropriate beaker ; 2 shows transfer of 10cm ³ to each beaker from the previous beaker ; 3 shows 10 cm ³ of W added to each beaker ;
1(a)(ii)	1 (heading for independent variable) concentration of H ₂ O ₂ <u>and</u> % <u>and</u> to the left of the dependent variable ; 2 (heading for dependent variable) time / seconds ; 3 result for each concentration ; 4 expected pattern of results (the highest concentration has the shortest time) ; 5 results recorded to the nearest whole second ;
1(a)(iii)	the times for U1 , U2 and U3 recorded <u>and</u> seconds ;
1(a)(iv)	shows the three times added and divided by 3 ;
1(a)(v)	estimates the concentration of hydrogen peroxide in sample U according to results ;
1(a)(vi)	shows that there are no anomalies ;
1(a)(vii)	states that using smaller intervals between concentrations of hydrogen peroxide around the estimate would allow a more accurate estimate ;
1(b)(i)	1 x-axis: time / hours <u>and</u> y-axis: percentage of bacterial cells able to produce hydrogen peroxide ; 2 scale on x-axis: 40 to 2 cm, labelled at least every 2 cm <u>and</u> y-axis: 4 to 2 cm, labelled at least every 2 cm ; 3 correct plotting of points using small dots in circles or crosses ; 4 plots joined with thin line passing through all points ;
1(b)(ii)	1 percentage increases as time progresses (for both temperatures) ; 2 greater increase at lower temperature ;
1(b)(iii)	1 value estimated from graph ; 2 suitable line shown on the graph ;
1(b)(iv)	states one of these variables – species of bacteria / pH / nutrient status / oxygen ;