

Multiple Choice Answers

Q14: D

Q16: A

Multiple Choice Answers

Q15: D

Q22: B

Multiple Choice Answers

Q17: A

Multiple Choice Answers

Q16: D

Q17: C

Multiple Choice Answers

Q19: C

5(a)(i)	bacteria / prokaryote(s) ;
5(a)(ii)	<i>any two from:</i> only use for bacterial infections / when essential / when necessary ; use appropriate antibiotic ; AVP ;
5(b)(i)	genus ;
5(b)(ii)	fungus / fungi ;
5(c)(i)	insulin / mycoprotein / ethanol / (named) alcohol / carbon dioxide / amino acids / hormones / proteins / factor VIII / AVP ;
5(c)(ii)	oxygen ;

5(c)(iii)	<i>any five from:</i> 1 monitoring ; 2 temperature ; 3 water jacket / described / water bath ; 4 pH ; 5 carbon dioxide might reduce pH ; 6 buffer / described ; 7 keep, pH / temperature, at suitable value for enzyme activity ; 8 (named) nutrient supply ; 9 carbon dioxide / waste products, removal ; 10 stirrer to equally (distributed), temperature / pH / nutrient concentration / oxygen concentration / microorganisms ; 11 idea of regulating (gas) pressure ; 12 vent or exhaust ; 13 sealed to prevent contamination / AW ;
5(d)	yeast ;

Multiple Choice Answers

Q17: D