

Question			Expected Answers	Marks
3	(a)	(i)	<p><i>DNA</i></p> <p>nucleotides / sugar + phosphate + base ; phosphodiester bonds ; double stranded / double helix ; 4 subunits / A,T,C and G ;</p>	<p><i>protein</i></p> <p>amino acids ; peptide bonds ; ref. 2° / 3° / 4°, structure ; 20 subunits ;</p> <p>2 max</p>
		(ii)	<p>cytoplasm ; cell membrane ; cell wall ; ribosomes ; circular DNA ; glycogen granule / oil droplet / food store ; AVP ; A slime capsule / mesosome / pili / flagellum / named bacterial function</p>	3 max
	(b)	(i)	disulphide ;	1
		(ii)	deoxyribose / sugar ; R incorrect named sugar	1
	(c)	(i)	<p>to, mark / label (molecules) ; to make (DNA and protein), traceable / trackable ; to distinguish DNA and protein ; AW</p>	2 max
		(ii)	<p><i>Experiment 1</i> radioactive DNA / radioactivity, found in offspring ; therefore DNA passed from parents to offspring ; AW</p> <p><i>Experiment 2</i> radioactivity not found in offspring ; therefore, protein left in coat / not passed on ; AW</p>	3 max
				[Total: 12]