

Question number	Answer	Mark
13	<p>Maximum 4 marks</p> <p>Similarities – Max 3 marks</p> <ul style="list-style-type: none"> • Zweig model, baryon 3 aces and standard model baryon 3 quarks, so similar 1 • Zweig model, meson 2 aces and standard model meson 2 quarks, so similar 1 • Zweig model, number of aces same as lepton and standard model quarks same as leptons, so similar 1 • Zweig model, aces have fractional charge and standard model quarks have fractional charge, so similar 1 • Zweig model, aces are fundamental and standard model quarks are fundamental, so similar 1 • Zweig model, aces have baryon number $1/3$ and standard model quarks have baryon number $1/3$, so similar 1 <p>Differences – Max 3 marks</p> <ul style="list-style-type: none"> • Zweig model, meson 2 aces but standard model meson quark antiquark, so different 1 • Zweig model, 4 aces in total but standard model 6 quarks in total, so different 1 • Zweig model, 4 leptons in total and standard model 6 leptons, so different 1 • Zweif model, no anti-aces but standard model has anti-quarks, so different 1 	(4)
	Total for question 13	4