

Question Number	Answer	Additional guidance	Mark
2(a)	<p>An explanation that includes the following points:</p> <ul style="list-style-type: none"> • they are all (genetically identical due to being) derived from the zygote (cell) (1) • {DNA/ chromosomes} are replicated (in interphase / in semi-conservative replication) (1) • (therefore) each cell receives one identical copy of each {strand of DNA / chromosome} (1) 	<p>Accept the cells have divided by mitosis / mitosis results in daughter cells that are genetically identical</p> <p>ignore genetic material</p>	(2)

Question Number	Answer	Additional guidance	Mark
2(b)(i)	blastocyst		(1)

Question Number	Answer	Additional guidance	Mark
2(b)(ii)	<p>An answer that includes the following points:</p> <ul style="list-style-type: none"> • pluripotent stem cells have the ability to differentiate into {most cells types / heart (muscle) cells} (1) • replace the dead heart (muscle) cells / so the heart will have improved function (1) 	<p>Accept repair damage caused (to the heart muscle) by the heart attack</p> <p>ignore repair heart muscle cells</p> <p>ignore references to regeneration</p>	(2)