This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge will not enter into discussions about these mark schemes.

Cambridge is publishing the mark schemes for the October/November 2016 series for most Cambridge IGCSE®, Cambridge International A and AS Level components and some Cambridge O Level components.

Question	Answer	Mark
1(a)(i)	Australia	**1**
1(a)(ii)	52.9 babies out of 1000 die in their first year of life 2 marks for all elements of definition 1 mark if an element is missing / incorrect	**2**
1(a)(iii)	Japan Uganda Australia	**3**
1(a)(iv)	30.1 – 7.9 = 22.2 per 1000 / 2.22%	**3**
1(b)(i)	Ideas such as: Good / free health care / hospitals / clinics Low ratio of doctors to patients / lots of doctors / nurses / qualified doctors / skilled doctors / good doctors Vaccinations Good food supply / diet / nutrition Good water / sanitation / hygiene / toilets / running water Medicines / drugs Education about healthy living / diet / disease prevention Contraception reduces risk of STDs / AIDS / HIV Care for elderly / pensions etc.	**3**

Question	Answer	Mark
1(b)(ii)	Level 1 (1 to 2 marks) Simple statements which explain why there are high birth rates in LEDCs. (e.g. lack of contraception, early marriage, high infant mortality, to send them out to work, to look after them when they are old etc.) Level 2 (3 to 4 marks) More developed statements which explain why there are high birth rates in LEDCs. (e.g. lack of contraception as people are unable to afford it, early marriage so it is likely that women will have more child bearing years during marriage, high infant mortality so women have more children in case some die, to send them out to work as they need lots of hand labour on farms, to look after them when they are old as there are no pensions etc.) Level 3 (5 to 6 marks) A comprehensive answer which uses developed statements to clearly explain why there are high birth rates in LEDCs. (Comprehensive requires at least three different issues to be covered with developed ideas)	6
1(c)(i)	Ideas such as: Population growth is generally higher in Africa / lower in South America More variation in Africa / less variation in South America Supporting statistics e.g. many between 2 and 3% in Africa but most below 2% in South America Some countries in both continents with same growth rates / some anomalies etc. Reserve 1 mark for comparative statistics from Figure 2	3

Question	Answer	Mark
1(c)(ii)	Level 1 (1 to 2 marks) Simple statements which explain why governments of many developing countries are trying to reduce population growth. (e.g. lack of resources, lack of work, lack of food, not enough health care, lack of housing etc.) Level 2 (3 to 4 marks) More developed statements which explain why governments of many developing countries are trying to reduce population growth. (e.g. to reduce unemployment which results in less poverty, so that there are fewer people who need to be fed therefore less starvation, there is not enough health care for a large population so death rates are high, there is not enough housing to accommodate all the population and reducing population's growth will result in fewer people having to live in squatter settlements etc.) Level 3 (5 to 6 marks) A comprehensive answer which uses developed statements to explain why governments of many developing countries are trying to reduce population growth. (Comprehensive requires at least three different issues to be covered using developed statements.)	**6**
1(d)(i)	Couples can have a second child if the first child is a girl. Couples can have a second child if both parents are only children.	**2**

Question	Answer	Mark
1(d)(ii)	Level 1 (1 to 2 marks) Simple statements which explain how social and economic problems might be reduced as a result of decision to relax the one child policy. (e.g. there will be more workers, male / female will become more balanced, children will have brothers and sisters etc.) Level 2 (3 to 4 marks) More developed statements which explain how social and economic problems might be reduced as a result of decision to relax the one child policy. (e.g. there will be more workers and therefore economic growth will increase, male / female will become more balanced and therefore more people will be able to marry and bear children in the future, children will have brothers and sisters so children will be less pampered etc.) Level 3 (5 to 6 marks) A comprehensive answer which uses developed statements to explain how social and economic problems might be reduced as a result of decision to relax the one child policy. (Comprehensive requires at least different issues to be covered using developed statements and must cover both social and economic issues.)	**6**
	Total:	**35**

Question	Answer	Mark
2(a)(i)	How population is made up (divided into) male / female / age groups / dependent / independent / economically / active / inactive	1
2(a)(ii)	1975 (highest birth rate) 2025 (longest life expectancy)	2
2(a)(iii)	Lower percentage of / fewer young people (by 2025) More / higher percentage of elderly people / some over 80 (by 2025) Age groups become more balanced (by 2025) Largest percentage is now 5–9 rather than 0–4 years Larger working population / economically active	2
2(a)(iv)	Birth rates are reduced / fewer children born As a result of increased availability of contraception etc. Death rates are reduced / people live longer / longer life expectancy As a result of more investment in health care / hospitals / doctors etc.	4
2(b)(i)	<table><thead><tr><th>1970</th><th>2015</th></tr></thead><tbody><tr><td>France</td><td>Italy</td></tr><tr><td>Italy</td><td>Sweden</td></tr><tr><td>USA</td><td>France</td></tr></tbody></table> (Note: Columns need to be fully correct for each mark)	2
2(b)(ii)	Both countries increase France higher percentage in 1970 / up to 1981/2 Italy higher percentage in 2015 / after 1981/2 Rate of growth is faster in Italy / Italy increases constantly while France decreases Comparative statistics (reserve 1 mark)	4

Question	Answer	Mark
2(b)(iii)	Percentages of over 65 will be lower / increase less quickly in developing countries As death rates may be higher / life expectancy shorter / birth rates higher / poorer health care etc.	**2**
	Total:	**17**

Question	Answer	Mark
3(a)(i)	South Africa	**1**
3(a)(ii)	Every 10th / nth person / at even intervals Using a list of over 60s / provided by South African Social Security Agency (dev. only) Choose people of different ages above 60 (dev. only)	**2**
3(a)(iii)	Announcement in Zulu – Many of the old people would not speak English / so they would understand / the local language is Zulu. Explained purpose – So people would be likely to trust the researchers / feel comfortable / less suspicious / people would think they may benefit from the research / know importance of the research. Used numbers rather than names – So people would be anonymous / people's privacy / confidentiality would be maintained	**3**
3(b)(i)	Completion of pie chart: Dividing line (1 mark) Shading of two sectors (1 mark)	**2**
3(b)(ii)	Completion of bar graph: Bar at 54 (shading not necessary) (1 mark)	**1**

Question	Answer	Mark
3(b)(iii)	Divided bar: Scale marked on edge of divided bar (1 mark) Dividing lines and shading accurately positioned (1 mark) Key completed to match shading in divided bar (1 mark)	**3**
3(b)(iv)	Most of the sample had an income between R500 and R1000 / low income Most of the sample spent over R500 / over half their income on food Most of the sample always had food shortages	**3**
3(c)(i)	Use questionnaires Interview (elderly people) / group discussion Interview doctors / nurses Use health records / data from clinics / hospitals / Ministry of Health Carry out health inspections or example, e.g. take blood pressure / weight etc.	**2**
3(c)(ii)	People may be unwilling / not have time to give information Illiteracy may prevent elderly people completing questionnaires People may lie about their health / give wrong information Health records are confidential Carrying out health inspections may need to be done by a skilled practitioner Health inspections may be seen to be intrusive Time consuming Data outdated / health records incomplete Questionnaires not returned	**2**

Question	Answer	Mark
3(d)(i)	Level 1 (1 to 2 marks) Simple justification of chosen scheme. Level 2 (3 to 4 marks) Justification of chosen scheme, along with reasons for rejection of some options. Level 3 (5 to 6 marks) Justification of chosen scheme, along with reasons for rejection of each of the other schemes, using a range of ideas.	**6**
3(d)(ii)	Ideas such as Use health records / Ministry of Health data to compare before and after Interview / questionnaire asking about improvements to diet / health Compare data such as life expectancy / death rates / calorie intake etc.	**3**
	Total:	**28**