GSOC.AL12 Demographic Change: Birth Rates, Death Rates and the Ageing Population

AQA 7192 · Calculators not allowed · about 70 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Use full sentences for questions worth 4 marks or more and for Question 16. Allocate your time so you can complete the 12-mark evaluation in approximately 20 minutes.

1 Which one of the following is a direct cause commonly given for long-term declines in the birth rate in developed countries?

- ☐ A) Increased use of effective contraception
- ☐ B) Higher infant mortality
- ☐ C) Greater prevalence of arranged marriages
- ☐ D) Reduced access to hospitals

(Total for Question 1 is 1 mark)

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2 Define what sociologists mean by the 'dependency ratio' when discussing an ageing population in a national context.

(Total for Question 2 is 2 marks)

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3 State two reasons, other than improved medical care, that sociologists give for the long-term decline in death rates in the UK over the 20th century.

(Total for Question 3 is 2 marks)

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4 Explain one reason why the rising average age of mothers at first birth contributes to a lower birth rate in a society.

(Total for Question 4 is 2 marks)

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5 Define the sociological meaning of 'beanpole family' as used when discussing the effects of an ageing population.

(Total for Question 5 is 2 marks)

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6 Item A: Demographic snapshot for the fictitious country Northford in 2025. Crude birth rate 9 births per 1000 population. Crude death rate 11 deaths per 1000 population. Median age 45 years. Percentage of population aged 65 and over 22%. Net migration is slightly positive at +2 per 1000. Using Item A, explain one reason why Northford's population might be described as ageing.

(Total for Question 6 is 4 marks)

7 Using Item A, state one way net migration of +2 per 1000 could affect Northford's age structure, without calculation.

(Total for Question 7 is 2 marks)

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8 Explain one reason why a falling crude birth rate does not immediately reduce the size of the elderly population.

(Total for Question 8 is 2 marks)

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9 Give two ways an ageing population can increase pressure on public spending in a country like the UK.

(Total for Question 9 is 4 marks)

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10 Describe one social consequence for families of an ageing population, using the beanpole family idea.

(Total for Question 10 is 4 marks)

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11 Item B: Survey finding for Northford, 2024. When asked who primarily provides unpaid elderly care, 62% of respondents aged 30-59 said family members; 18% said professional care services; 20% said a mix or other. Using Item B, suggest one reason policymakers might worry about the sustainability of unpaid family care as the main source of elderly support.

(Total for Question 11 is 4 marks)

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12 Outline and explain two consequences of an ageing population for the labour market in a developed country context.

(Total for Question 12 is 6 marks)

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13 Explain two demographic reasons why the crude death rate in a country might temporarily rise, even though life expectancy overall is increasing.

(Total for Question 13 is 4 marks)

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14 Describe two policy responses governments might adopt to address the pressures of an ageing population on pensions and social care.

(Total for Question 14 is 4 marks)

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15 Outline two ways the changing economic role of women has been used to explain falling birth rates in developed societies.

(Total for Question 15 is 4 marks)

16 Item A and Item B are printed above. Applying material from Item A and Item B and your sociological knowledge, evaluate sociological explanations for the long-term decline in the birth rate in developed countries.

Using Item A and Item B and your knowledge, evaluate sociological explanations for the long-term decline in the birth rate.

(Total for Question 16 is 12 marks)

Mark scheme · GSOC.AL12 Demographic Change: Birth Rates, Death Rates and the Ageing Population

Question 1

- **B1** A (Increased use of effective contraception)
- **Answer: A**

Question 2

- **B1** identifies dependency ratio as the relationship between dependents and working-age population, oe
- **B1** development, e.g. number of children and elderly compared with those aged roughly 16-64, expressed as a ratio or percentage
- **Answer: The dependency ratio is the relationship between dependents and the working-age population, for example the number of children and elderly compared with those aged about 16-64, often shown as a ratio or percentage.**

Question 3

- **B1** first valid reason, e.g. improved nutrition or better sanitation/public health measures
- **B1** second valid reason, e.g. improvements in housing or reductions in infectious disease through vaccination programmes
- **Answer: Examples: improved nutrition and better sanitation/public health measures; also improvements in housing and vaccination programmes.**

Question 4

- **B1** identifies that later childbearing shortens the window of fertility or leaves less time for multiple children
- **B1** development, e.g. couples who delay starting a family often have fewer children overall because of biological and life-stage constraints
- **Answer: Later childbearing shortens the time available for having children or having multiple children; couples who delay starting a family often end up having fewer children overall because of biological and life-stage constraints.**

Question 5

- **B1** identifies beanpole family as a long, thin family structure with more generations but fewer people in each generation, oe
- **B1** development, e.g. several living generations but smaller family size per generation
- **Answer: A beanpole family is a long, thin family structure with more living generations but fewer people in each generation, meaning several generations are alive but each generation has fewer members.**

Question 6

- **B1** identifies evidence from Item A showing an older population, e.g. high median age or high percentage aged 65+
- **B1** development, e.g. median age 45 is above many developed-country medians, indicating ageing
- **B1** further link, e.g. 22% aged 65+ is a large share that increases old-age dependency
- **B1** development linking the statistic to the ageing description, e.g. more elderly and higher median age together justify calling the population ageing
- **Answer: Item A shows a median age of 45 and 22% aged 65 and over; these figures indicate a large proportion of older people and a higher-than-average median age, so Northford can be described as ageing.**

Question 7

- **B1** identifies a plausible effect, e.g. if migrants are mainly young working-age people, net migration could reduce the median age or help support the workforce
- **B1** brief development, e.g. this could lower the old-age dependency ratio or offset some effects of low birth rate
- **Answer: If migrants are mainly young working-age people, the net migration of +2 per 1000 could reduce the median age and help lower the old-age dependency ratio, offsetting some effects of the low birth rate.**

Question 8

- **B1** identifies that those who are elderly now were born decades earlier, so current low birth rates do not affect their numbers
- **B1** development, e.g. population momentum means age structure changes slowly because of past higher births
- **Answer: The current elderly were born decades earlier, so recent falling birth rates do not immediately change their numbers; population momentum means age-structure shifts happen slowly due to past higher birth cohorts.**

Question 9

- **B1** first way, e.g. increased spending on pensions as more people reach retirement age
- **B1** development of first way, e.g. longer life expectancy raises total pension costs
- **B1** second way, e.g. greater demand for health and social care services for elderly people
- **B1** development of second way, e.g. higher per-person health costs and need for long-term care create budget pressure
- **Answer: Examples: more spending on pensions as more people retire and live longer, and greater demand for health and social care services for older people which raises per-person costs and long-term care spending.**

Question 10

- **B1** identifies a social consequence linked to beanpole families, e.g. more generations alive at once with fewer children in each generation
- **B1** development, e.g. family responsibilities shift, with adult children more likely to care for elderly parents
- **B1** further development, e.g. emotional and financial support may flow up the generations, increasing intergenerational dependency
- **B1** links consequence explicitly to ageing population context
- **Answer: An ageing population leads to beanpole families with more living generations but fewer children per generation; adult children become more likely to care for elderly parents, increasing emotional and financial responsibilities and intergenerational dependency.**

Question 11

- **B1** identifies a concern drawn from Item B, e.g. heavy reliance on family members for care
- **B1** development, e.g. with ageing population there will be proportionally more elderly needing care, increasing burden on families
- **B1** further point, e.g. smaller family sizes and geographic dispersion may reduce availability of family carers
- **B1** links back to policymaker worry about sustainability of unpaid care
- **Answer: Item B shows 62% name family as the main provider of unpaid elderly care, so policymakers may worry that as the population ages the burden on families will rise; smaller family sizes and relatives living farther apart could reduce the availability and sustainability of family carers.**

Question 12

- **B1** first consequence identified, e.g. labour shortages in some sectors as a larger share retires
- **B1** development explaining how retiring cohorts reduce labour supply and can push up wages or require more immigration
- **B1** second consequence identified, e.g. increasing demand for jobs in health and social care
- **B1** development explaining that ageing increases demand for care workers, creating skill shortages and policy pressure to train or recruit
- **B1** further linked point, e.g. older workers may remain in work longer, changing employer practices
- **B1** development of the previous point, e.g. employers may need to adapt workplaces and retraining to retain older employees
- **Answer: Consequences include labour shortages as many workers retire, which can push up wages or increase reliance on immigration; and greater demand for health and social care jobs, creating skill shortages and the need for training and recruitment. Additionally, older workers staying in work may lead employers to adapt workplaces and retrain staff.**

Question 13

- **B1** first reason, e.g. population ageing increases number of deaths because more people are in older age groups
- **B1** development, e.g. crude death rate counts deaths per population and can rise if age structure shifts toward older cohorts
- **B1** second reason, e.g. temporary events like a pandemic or heatwave increase deaths in the short term
- **B1** development, e.g. such events raise deaths across age groups, creating a temporary rise in crude death rate despite longer-term improvements
- **Answer: The crude death rate can rise temporarily because an ageing population puts more people into older age groups where deaths are more likely, and because short-term shocks like a pandemic or heatwave raise deaths in the short run even while long-term life expectancy improves.**

Question 14

- **B1** first response identified, e.g. raising the state pension age
- **B1** development of first response, e.g. this reduces number of pensioners and increases working population contributions
- **B1** second response identified, e.g. increasing funding for social care through taxation or targeted programmes
- **B1** development of second response, e.g. could include more spending on community care, subsidies, or incentives for private pensions
- **Answer: Governments can raise the state pension age to reduce the number of pension claimants and keep more people contributing to the workforce, and they can increase funding for social care through taxation, subsidies or incentives for private pensions and community care to meet rising demand.**

Question 15

- **B1** first way identified, e.g. increased female labour-force participation leads to delayed childbearing
- **B1** development of first way, e.g. career and education priorities reduce fertility or mean couples have fewer children
- **B1** second way identified, e.g. greater education and empowerment reduces economic reliance on having many children
- **B1** development of second way, e.g. women choose smaller families because they have more control over fertility and life choices
- **Answer: Examples: more women in education and paid work delay childbearing and may have fewer children because of career and family timing; greater female education and empowerment reduce economic reliance on large families and give women greater control to choose smaller families.**

Question 16

- **Level 1** (1-3): Basic statements that identify one or two reasons for falling birth rates with little or no application to the Items and limited development.
- **Level 2** (4-6): Some development and organisation; outlines a couple of sociological explanations such as contraception, changing role of women, economic costs, with some use of the Items to illustrate points.
- **Level 3** (7-9): Clear explanation of several sociological explanations, including application to Item A and Item B, and some evaluation, for example considering strengths, limits or evidence for each explanation.
- **Level 4** (10-12): Detailed evaluation including competing perspectives and a supported conclusion; well integrated use of Item A and Item B to support and challenge explanations, addressing issues such as class, policy, cultural variation and the role of migration.
- **Indicative content:**
  - AO1 points: explanations for falling birth rate including increased use of contraception and family planning, changing economic role and status of women (education, employment), rising costs of childrearing and housing, later average age of first birth, cultural shifts towards individualisation and smaller families.
  - AO2 application: Item A shows a low crude birth rate of 9 per 1000 and a high median age 45 with 22% aged 65+, supporting arguments about delayed childbearing and demographic momentum; Item B's reliance on family care could be used to discuss how family size changes affect care provision and decision making about having children.
  - AO3 evaluation: consider strengths and limits of each explanation, for example contraception explains control over fertility but may not explain why couples choose fewer children; the changing role of women explains delay and fewer births but class and cultural factors mean the effect varies; economic explanations highlight costs and housing but policies such as family benefits or childcare provision can mitigate these; migration can affect birth rates and age structure, and items show net migration is small and so has limited offsetting effect in Item A; consider evidence quality and whether explanations are complementary rather than mutually exclusive.
  - Conclusion: reach a balanced judgement, for example that no single explanation fully accounts for the decline, and that a combination of contraception, women's changing roles and economic pressures, shaped by policy context and migration patterns, best explains long-term falls in birth rates.