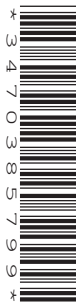


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0453/02

October/November 2016

2 hours

Candidates answer on the Question Paper.

Additional Materials: Ruler

READ THESE INSTRUCTIONS FIRST

Write your Centre number, candidate number and name on all the work you hand in.

Write in dark blue or black pen.

You may use an HB pencil for any diagrams, graphs or rough working.

Do not use staples, paper clips, glue or correction fluid.

DO **NOT** WRITE IN ANY BARCODES.

Answer **all** the questions.

You may not need all the answer lines for your answer.

You should read and study the sources **before** answering the questions.

At the end of the examination, fasten all your work securely together.

The number of marks is given in brackets [] at the end of each question or part question.

This document consists of **17** printed pages and **3** blank pages.

- 1 (a) Study Fig. 1, which shows information about the population in four countries in 2013.

Country	Total population (millions)	Birth rate (per 1000)	Death rate (per 1000)	Net migration (per 1000)	Life expectancy (years)	Infant mortality rate (per 1000)
Japan	127	8.1	9.4	0	84.5	2.1
Australia	22	12.2	7.1	+5.7	82.1	4.4
Sudan	35	30.1	7.9	−4.4	63.3	52.9
Uganda	36	44.2	11.0	−0.7	54.5	60.8

Fig. 1

- (i) Which **one** of the countries shown in Fig. 1 had the smallest total population?

.....[1]

- (ii) Sudan had an infant mortality rate of 52.9. Explain what is meant by this.

.....

[2]

- (iii) Identify from Fig. 1 the country where:

- people live the longest on average
- the total population is increasing most rapidly
- there is more immigration than emigration. [3]

- (iv) Calculate the natural population growth rate of Sudan.
 You should show your calculations.

[3]

(b) (i) Suggest **three** reasons why there are low death rates in Australia (a developed country).

- 1
-
- 2
-
- 3
-[3]

(ii) Explain why there are high birth rates in developing countries such as Uganda.

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-
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-
-
-
-
-[6]

(c) Study Fig. 2, which shows information about population change in 2013.

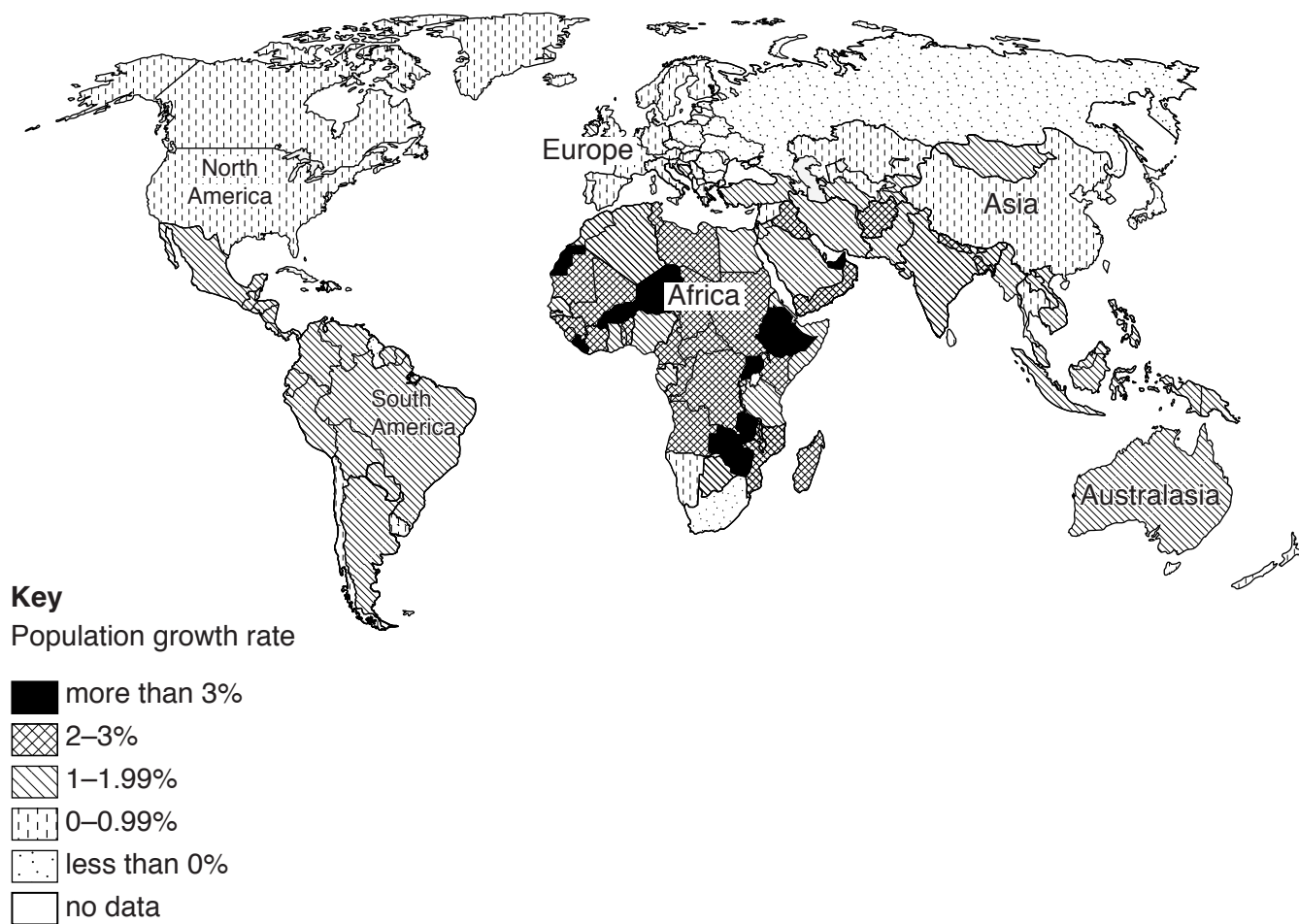


Fig. 2

- (i) Compare the population change in Africa with that in South America. Refer to information from Fig. 2.

.....

.....

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.....

.....

.....[3]

- (ii) Explain why the governments of many developing countries are aiming to reduce their rates of population growth.

[6]

- (d) Study Fig. 3, which is an article written in 2013 about population policy in China.

Why China Is Finally Abandoning Its One Child Policy

One of the first announcements by the new government taking charge in China may lead to the gradual removal of the One Child Policy, which has been used since 1979 to reduce birth rates.

The policy was first introduced to reduce population growth and to promote economic development.

The One Child Policy has reduced birth rates but has caused problems both socially and economically in China. There are now two generations of Chinese adults who never had the benefits of growing up with brothers or sisters. There is a great shortage of females compared with males.

The percentage of the Chinese population over 65 is rising at one of the fastest rates in the world. This slows down economic growth and results in a lack of workers. The costs of health care and looking after the elderly continue to increase.

China's One Child Policy has been changed in recent years. Couples can now apply to have a second child if their first child is a girl, or if neither parent had brothers or sisters.

Fig. 3

- (i) Identify from Fig. 3 **two** ways in which the One Child Policy in China has been changed in recent years.

1

.....

2

.....[2]

- (ii)** Explain how social and economic problems might be reduced in China as a result of these decisions to change the One Child Policy.

[6]

[Total: 35 marks]

2 (a) Study Fig. 4, which shows changes in the population structure of the Dominican Republic.

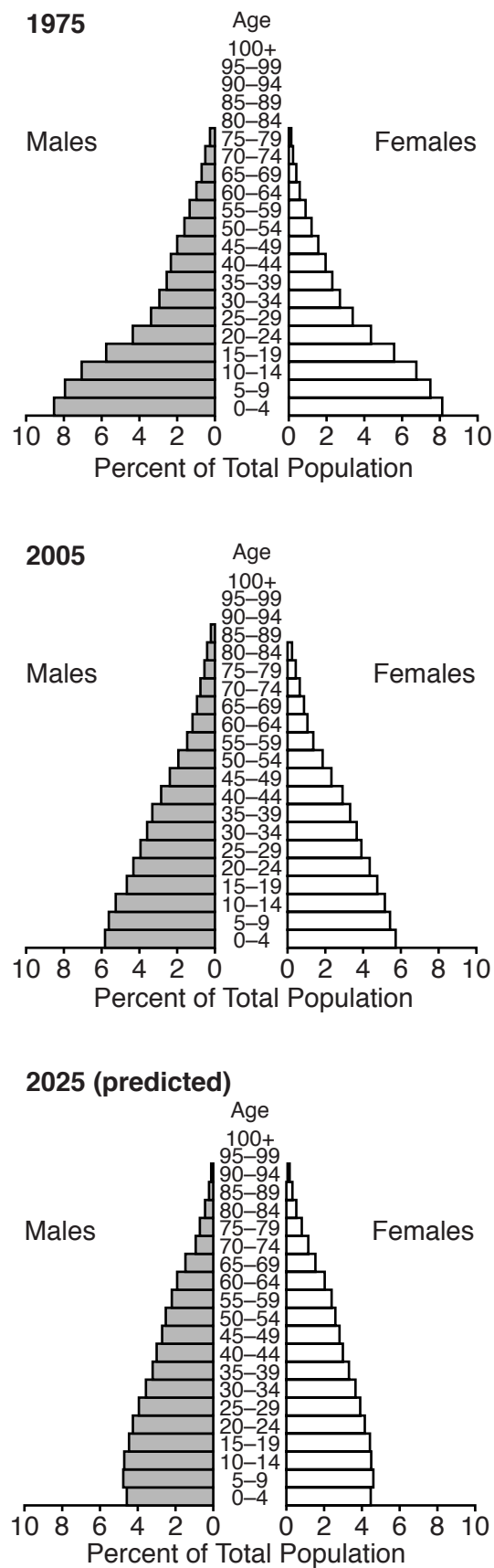


Fig. 4

(i) What is meant by the term *population structure*?

.....
[1]

(ii) Using Fig. 4, state the year with:

- the highest birth rate [2]
- the longest life expectancy.

(iii) Describe **two** predicted changes in the population structure of the Dominican Republic between 1975 and 2025.

1

 2
[2]

(iv) Explain why the population structure of a country changes as the country develops.

.....

[4]

- (b) Study Fig. 5, which shows changes in the percentage of population over the age of 65 in selected developed countries.

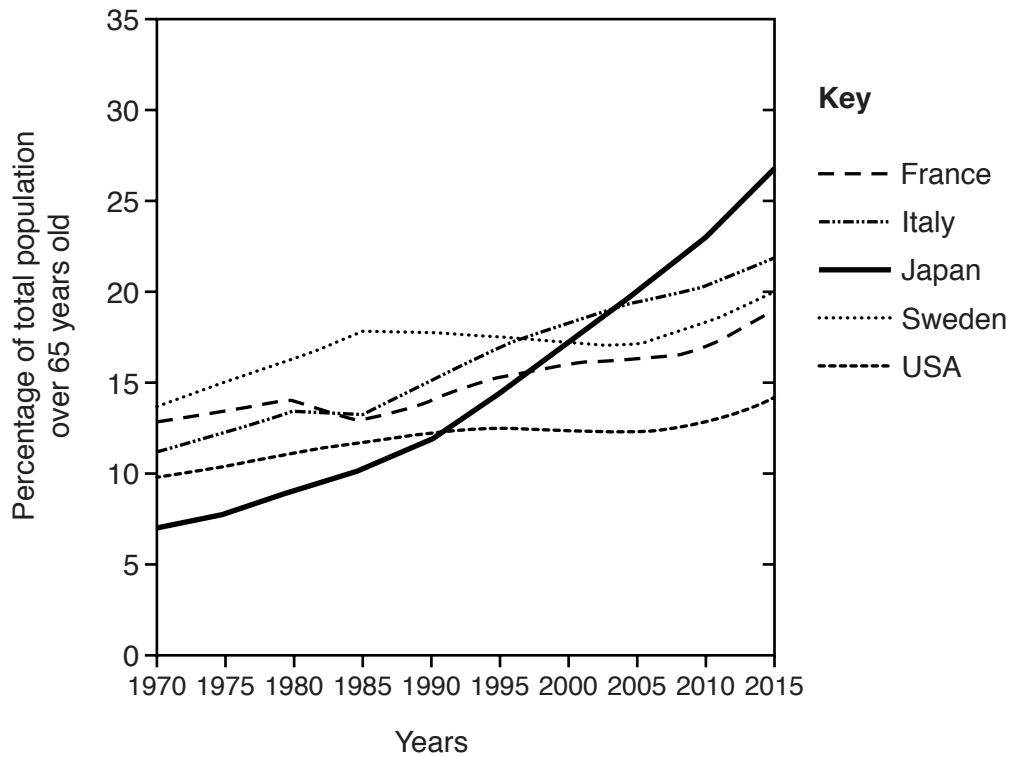


Fig. 5

- (i) Complete the following table to show the rank order of these countries based on the percentage of the population over the age of 65 in 1970 and 2015.

MOST ↑ ↓ LEAST	Percentage of population over 65 in 1970	Percentage of population over 65 in 2015
	Sweden	Japan
		
		
		
	Japan	USA

[2]

- (ii) Compare the change in the percentages of the population over the age of 65 in Italy and France between 1970 and 2015. Include statistics in your answer.

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.....[4]

- (iii) Suggest how the percentages of people over 65 in developing countries will differ from the developed countries shown in Fig. 5. Give a reason for your answer.

.....

.....

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.....[2]

[Total: 17 marks]

- 3 Study Fig. 6, which contains information about an investigation carried out by researchers at Durban University of Technology into elderly people in South Africa.

The purpose of this research was to investigate the diet and health of elderly people on state pension living in Umlazi, KwaZulu-Natal, South Africa. The researcher made an announcement in the Zulu language. This was done in the community halls used as pension paypoints, a month before the study took place in order to inform the elderly about the fieldwork which would be taking place on their next pension date. Systematic sampling was used to choose a sample of 1700 from the 17000 people in Umlazi who were aged 60 years and older and registered pensioners with the South African Social Security Agency.

All the respondents had to complete a consent form to take part in the study, after listening to the researcher explaining the purpose of the study. All participation was on a voluntary basis and respondents understood that they could withdraw at any time.

All respondents were given a number and no names were used during the study. The names and numbers of the respondents were kept at the Durban University of Technology and no one had access to it except for the researchers.

Fig. 6

- (a) (i) In which country was this research investigation carried out?

.....[1]

- (ii) The sample of 1700 elderly people was chosen using systematic sampling. Suggest how the researchers could have chosen this systematic sample.

.....

[2]

- (iii) Suggest why the researchers:

- made an announcement in the Zulu language rather than in English

.....

- explained the purpose of the study

.....

- used numbers rather than names of participants during the study.

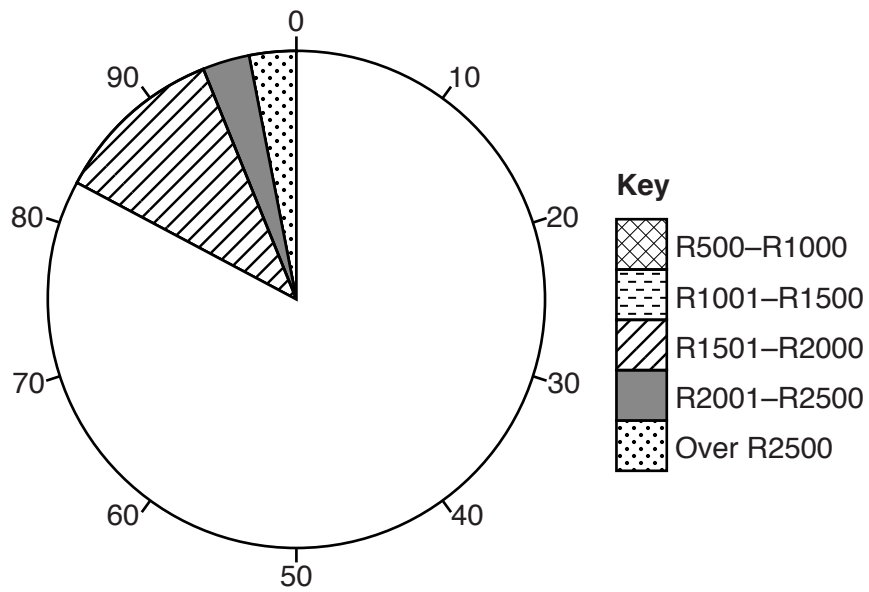
.....
[3]

(b) Study Fig. 7, data collected by the researchers about the sample of 1700 elderly people.

Total income per household (in rand – South African currency)	Percentage of respondents
R500–R1000	66
R1001–R1500	17
R1501–R2000	11
R2001–R2500	3
Over R2500	3
Spending on food per month (in rand)	
Less than R250	9
R250–R500	11
Over R500	80
Food shortages	
Always	54
Often	15
Sometimes	29
Never	2

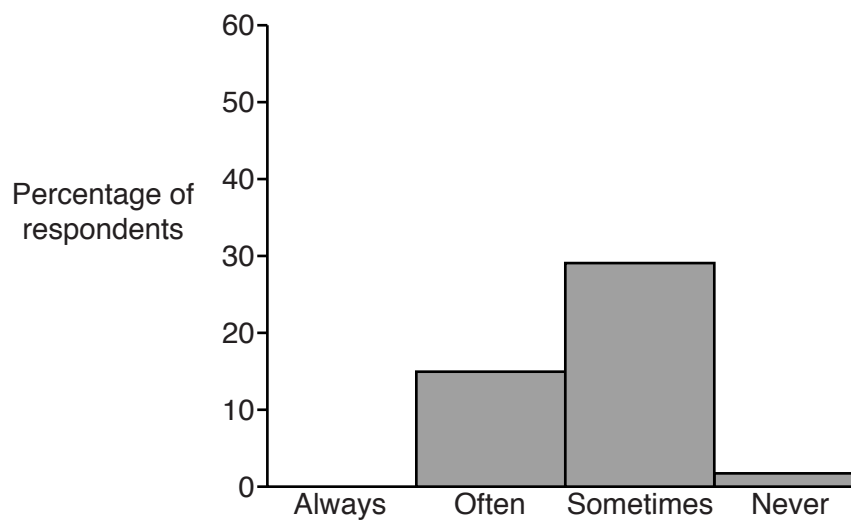
Fig. 7

- (i) Complete the pie chart which shows total income per household.



[2]

- (ii) Complete the bar graph which shows food shortages.



[1]

- (iii) Draw a divided bar which shows spending on food per month.

**Key**

[3]

- (iv) Identify **three** conclusions that can be drawn from Fig. 7 about the total income per household, spending on food per month and food shortages for the sample of elderly people.

1

.....

2

.....

3

.....[3]

- (c) The researchers also had to collect information about the health of the elderly people.

- (i) Describe **two** different methods which the researchers could have used to collect data about the health of their sample of 1700 elderly people.

1

.....

2

.....[2]

- (ii) Explain why obtaining information about the health of the sample of elderly people may be difficult using these methods.

.....

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.....

.....[2]

- (d) Study Fig. 8, recommendations of the researchers for improving the diet and health of elderly people in Umlazi.

Recommendation A

Provide free health and nutrition education for all adults in Umlazi.

Recommendation B

Set up 'food banks' where people who have a monthly income of less than R1000 can claim free meat, maize and vegetables.

Recommendation C

Give higher pension payments to all people aged 60 and over in Umlazi.

Recommendation D

Enlarge the clinic in Umlazi and employ more doctors and nurses.

Fig. 8

- (ii) After five years, the researchers intend to review the success of the chosen recommendation.

Suggest methods they could use to find out if the diet and health of elderly people have improved.

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.....[3]

[Total: 28 marks]

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