

Name:		Index Number:		Class:	
--------------	--	----------------------	--	---------------	--



**DUNMAN HIGH SCHOOL
PRELIMINARY EXAMINATIONS
Year 6**

HIGHER 1 GEOGRAPHY

8813/01

Paper 1

Monday

11 September 2017

3 hours

READ THESE INSTRUCTIONS FIRST

Write your name and class clearly on **all** the work you hand in.
Write in dark blue or black pen on both sides of the paper.
You may use an HB pencil for any diagrams or graphs.
Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **four** questions in total.

Section A

Answer Question 1.

Section B

Answer Question 2.

Section C

Answer **two** questions, each from a different theme.

The Insert contains all the Resources referred to in the questions.
You should make reference to appropriate examples studied in the field or the classroom, even where such examples are not specifically requested by the question.
Diagram and sketch maps should be drawn whenever they serve to illustrate an answer.
The world outline map may be annotated and handed in with relevant answers.
You are reminded of the need for good English and clear presentation in your answers.

Start each question on a fresh sheet of paper.

At the end of the examination, fasten all your work securely together.
The number of marks is given in the brackets [] at the end of each question or part question.

This document consists of **5** printed pages, **1** blank page and **1** Insert.

[Turn over

Section A

Theme 3: Geographical Investigation

- 1 You and a group of classmates were tasked with undertaking a fieldwork investigation at two contrasting river channels to ascertain the flood risk at the sites shown in Resource 1. River A is located in a forest reserve. River B is a managed river channel.

The group was divided up into teams of four to measure river velocity and wetted perimeter of each river. Discharge is calculated by multiplying the cross sectional area of the channel by the velocity of the water.

Your team took measurements on two consecutive Tuesdays in March and were given 4 hours, between 10 a.m. and 2 p.m., at each site to complete the river velocity and wetted perimeter measurements.

Teams were each given the following equipment to gather the primary data on river velocity:

- Oranges
- Tape measure
- Stop watch

The time taken for the floating object to cover a pre-determined distance, defined by the position of 2 students standing by the side of the river, was recorded. At River A, the group found that the floating object was often obstructed by fallen trees or debris in the river. The data collected was recorded using a data collection sheet.

To measure the wetted perimeter of the river, your team used the following equipment:

- Tape measure
- Meter rulers

Your team laid an unweighted tape measure along the river bed and took depth measurements at equal distances across the river. This data was used to plot the wetted perimeter of the river and then the cross sectional areas of the two rivers were calculated.

Resource 1 shows the land use associated with Rivers A and B. Resource 2 shows the photographs of the locations where field investigation was conducted at River A and River B. Resource 3 shows the velocity data collected by your team.

- (a) With reference to Resource 1, suggest a suitable hypothesis for your group investigation. [1]
- (b) Explain how your group would minimise the impact of your investigation differently at the two rivers shown in Resource 2. [5]
- (c) Suggest two limitations of the data representation method shown in Resource 3 and sketch one line graph to represent the average velocity of Rivers A and B over time. [5]
- (d) Your group concluded that some of the discharge data collected may not be completely reliable and/or accurate.
Explain how the process of data collection could be improved. [6]
- (e) Evaluate the usefulness of the river velocity data shown in Resource 3 in helping to ascertain the flood risk at each of the two rivers. [8]

Section B**Theme 2: Urban Change****Slums in Developed Countries (DCs) and Less Developed Countries (LDCs)**

- 2** Resource 4 shows the change in the slum and non-slum population in Mumbai and Ahmedabad, India, a LDC. Resource 5 shows the distribution of slums and some features of the urban structure of Mumbai in 2008. Resource 6 shows slum housing in Dharavi, Mumbai; and low-income housing in Paris, France, a DC. Resource 7 shows two excerpts on life and the future development of slums in Mumbai; and also slum housing in Le Banlieues, a suburb in Paris.
- (a)** With reference to Resource 4, suggest reasons for the differences in the size and extent of slum population between Mumbai and Ahmedabad. [4]
- (b)** With reference to Resource 5, suggest **three** reasons for the locations of slum development in Greater Mumbai. [5]
- (c)** With reference to Resource 6, contrast the characteristics of slum housing between Mumbai and Paris. [4]
- (d)** With reference to Resources 6 & 7, and your own knowledge, explain how urban liveability issues may differ between residents in LDCs and DCs. [6]
- (e)** Using Resource 7 and your own knowledge, explain if housing strategies used to improve the lives of slum dwellers are effective. [6]

Section C

Answer **two** questions from this section. **Either** Question 3 **or** Question 4 and **Either** Question 5 **or** Question 6.

Theme 1: Climate Change and Flooding

- 3 (a)** With the aid of an annotated diagram, explain the key features of storm discharge characteristics in the arid tropics. [9]
- (b)** 'Climate is the most important factor influencing hydrological processes of drainage basins in the tropics.'
- Discuss. [16]
- 4 (a)** Explain the evidence of climate change in the tropics since the Late Pleistocene Epoch. [9]
- (b)** 'The poorest developing countries will be hit earliest and hardest by climate change even though they have contributed little to causing the problem.' - Stern Review 2006
- To what extent can countries of low levels of development manage the impacts of human-induced climate change? Discuss. [16]

Theme 2: Urban Change

- 5 (a)** Explain how the issue of crowding or fear is produced in cities with high levels of development. [9]
- (b)** Discuss the extent to which urban reimagining strategies in high-income countries have raised the quality of urban living for its dwellers. [16]
- 6 (a)** Explain how cities with varying levels of economic development manage non-hazardous solid waste. [9]
- (b)** 'Strategies to ease traffic congestion in cities have had little success.'
- Discuss the extent to which you agree with the statement. [16]

BLANK PAGE

Name:		Index Number:		Class:	
-------	--	---------------	--	--------	--



**DUNMAN HIGH SCHOOL
PRELIMINARY EXAMINATIONS
Year 6**

HIGHER 1 GEOGRAPHY

8813/01

**Paper 1
INSERT**

Monday

11 September 2017

3 hours

READ THESE INSTRUCTIONS FIRST

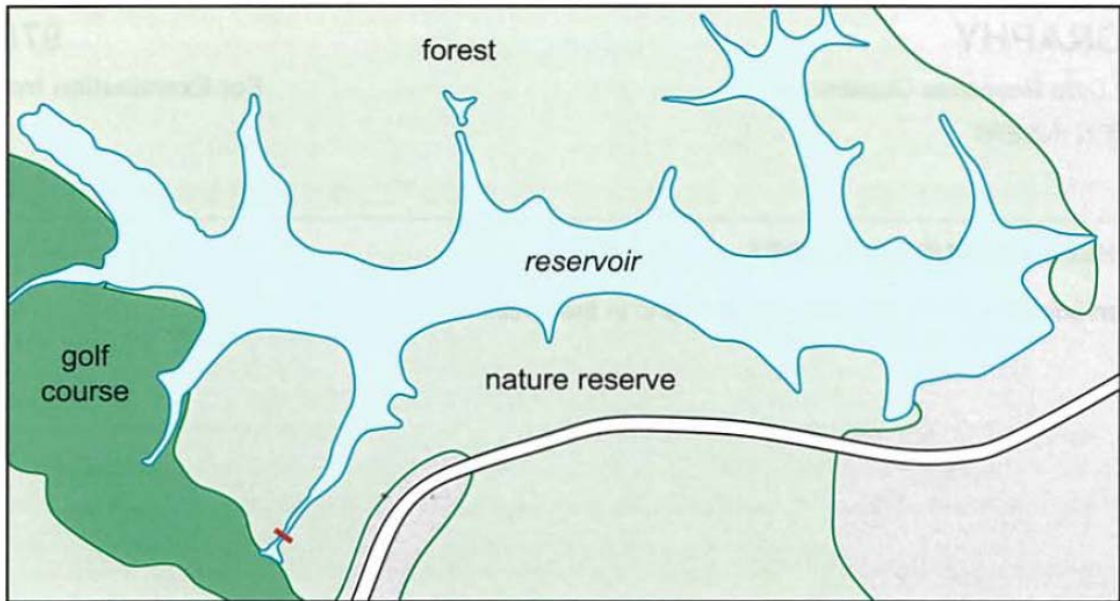
This Insert contains all the Resources referred to in the questions.

This document consists of **8** printed pages.

[Turn over

Resource 1 for Question 1
Land use associated with River A and River B

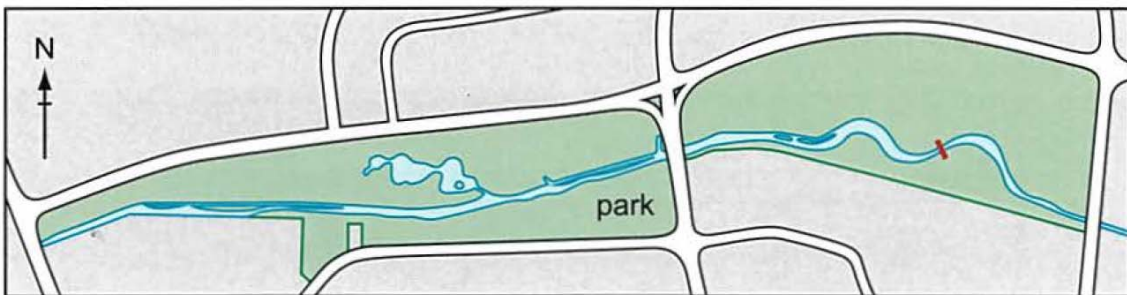
River A



Key

- site of river fieldwork
- built up area

River B



Key

- site of river fieldwork
- built up area

Resource 2 for Question 1

**Photographs of the locations where field investigation was conducted
at River A and River B**

River A



River B



Resource 3
Velocity Data of Rivers A and B

River A

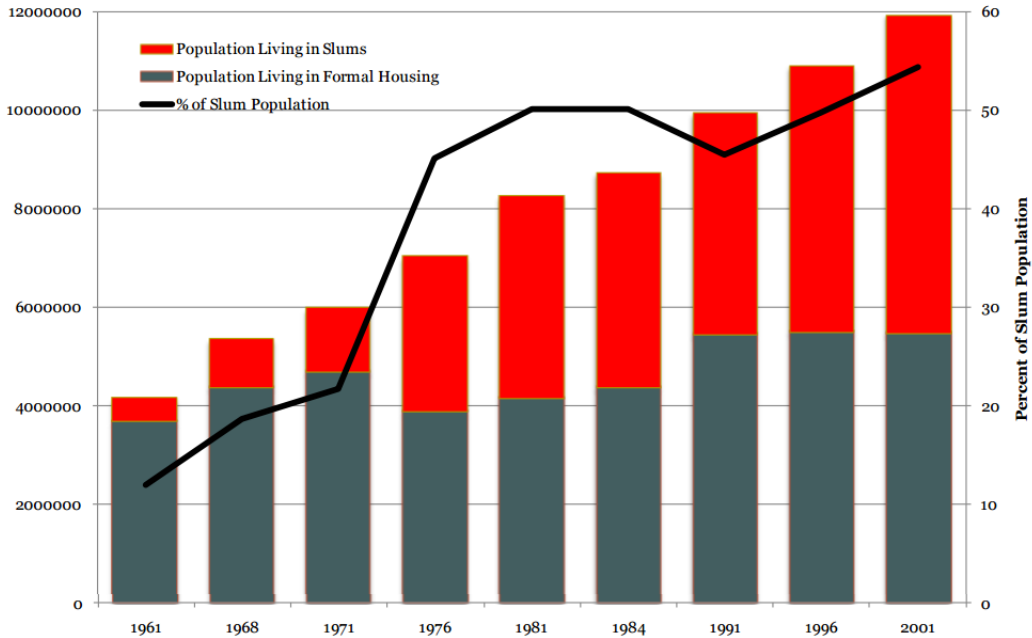
River B

Time	Velocity (m/s)				Velocity (m/s)			
	1	2	3	average	1	2	3	average
10:00	0.42	0.52 0.48	0.46	0.45	0.36 0.40	0.40	0.45	0.40
11:00	0.50	0.50	0.48	0.49	0.52	0.58	0.56	0.55
12:00	0.56	0.58	0.55	0.56	0.62	0.63	0.66	0.67
13:00	0.52 0.53	0.52	0.54	0.53	0.51	0.53	0.56	0.53
14:00	0.48	0.46	0.48 0.45	0.46	0.48	0.49	0.50	0.49

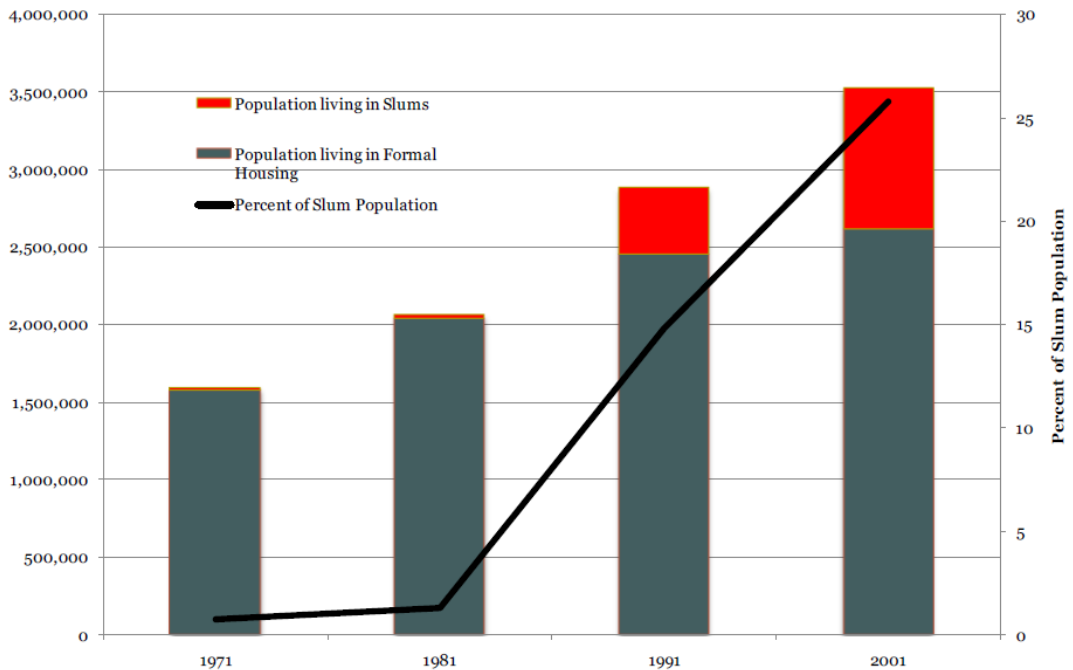
Resource 4 for Question 2

Change in the slum and non-slum population in Mumbai and Ahmedabad, two cities in India, a LDC

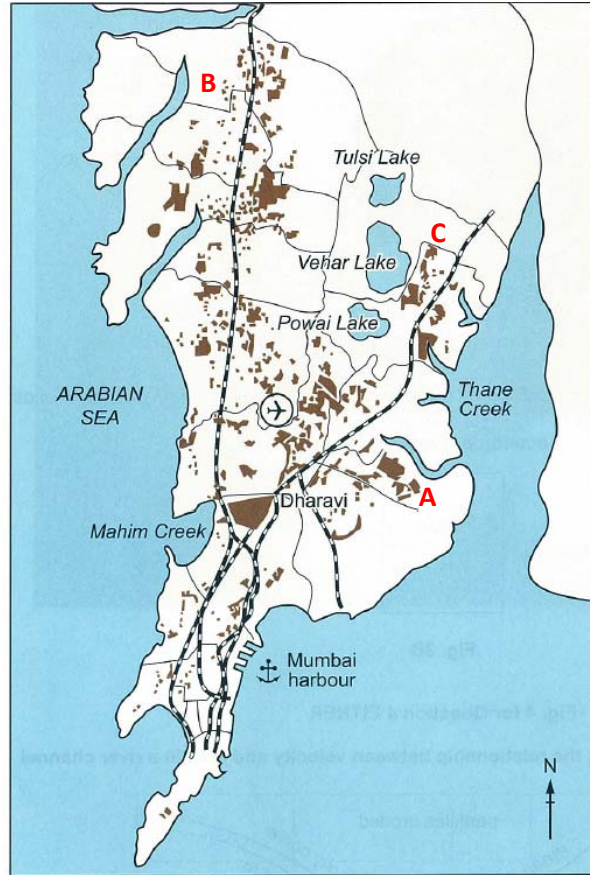
Mumbai



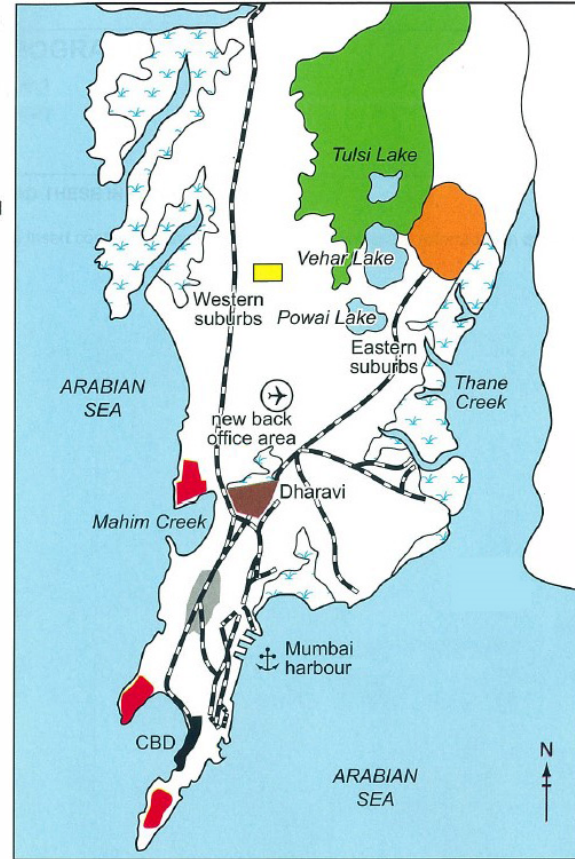
Ahmedabad



Resource 5 for Question 2
Slum Locations and Features in Mumbai, India



Key
 ■ slums
 ■ water
 — railways
 ⊕ Mumbai international airport
 A - C Landfill sites



Key
 ⊕ Mumbai international airport
 ⊕ berths for large ships and container vessels
 — railways
 □ marshland
 ■ green open space, protected land
 ■ old industrial zone
 ■ Dharavi - a slum
 ■ Mumbai's CBD
 ■ Bhandup industrial area
 ■ upper income residential areas
 ■ 'Film City' - centre of Bollywood film industry

0 5
 km

Resource 6 for Question 2
Slums in Mumbai and Paris

A slum in Mumbai slum (LDC)



A slum in Les Banlieues, Paris (DC)



Resource 7 for Question 2**Abridged excerpts on life and future development of slums in Mumbai and Paris**

Dharavi's population has achieved a unique informal urban development over the years without any external aid. It is a humming economic engine. While not everyone has formal access to safe water and sanitation, the residents have been able to lift themselves out of poverty by establishing thousands of successful businesses. Dharavi currently has close to 5,000 industrial units, producing textiles, pottery and leather, and performing services like recycling.

But Dharavi is no longer safe from demolition. Massive growth over the last two decades has engulfed Dharavi's plot of 525 acres. Today, Dharavi is situated in the heart of the megapolis where land prices are highest in India. Its position sits at the intersection of two main train lines, and is near the new business district. Under the government-led Dharavi Redevelopment Project, developers will provide the people living there – who can prove residency since 2000 – a new and nearby 300 square foot house for free.

In contrast, life seems glum for slum residents in Paris. Those who live in the suburbs have no hope of employment due to racism and a lack of jobs. They spend their days taking drugs and avoiding arrest from cops. One resident said that "*there is nothing to do. You wake up looking for work, but there isn't any.*"

Paris city officials have decided to locate new low-income buildings in a couple of the most affluent neighbourhoods. The move is part of a broader push by the city to create more affordable homes in the French capital's wealthier neighbourhoods. In the past, low-income housing has largely been limited to the city's poorer areas and the suburbs outside of Paris.