



**National Junior College
SH2 Preliminary Examination 2015**

GEOGRAPHY

8812/01

Higher 1

**3 Hours
28 August 2015**

READ THESE INSTRUCTIONS FIRST

Answer **four** questions from Section A.
Answer **one** question from Section B.
Answer **one** question from Section C.

At the end of the examination, fasten all your answer scripts securely together.
The number of marks is given in brackets [] at the end of each question or part question.
Insert contains all the Figures referred to in the question paper.
You are reminded of the need for good English and clear presentation in your answers.

This document consists of **6** printed pages, including this cover page.

Section A

Answer **all** the questions in this section.

Question 1, 2 and 3 carry 12 marks each, while Question 4 carries 14 marks.

You should allocate your time accordingly.

Lithospheric Processes, Hazards and Management

Question 1

Photograph A shows a weathered corestone in the savanna of the Tarangira National Park, Tanzania.

- (a) (i) Briefly describe the weathered corestone in Photograph A and name two weathering processes that are likely to be operating on the corestone. [4]
- (ii) Explain how the two weathering processes in (a) (i) that might have operated on the corestone to influence its form. [4]
- (b) Describe how the physical characteristics of limestone impact on its weathering in an area with a temperate climate. [4]

The Globalisation of Economic Activity

Question 2

Fig. 1 shows the global gender gap index (GGGI), 2008, and the global competitiveness index (GCI), 2008-9.

- (a) Name the country in Fig. 1 which:
 - (i) scored the highest for global competitiveness;
 - (ii) showed the greatest gender gap [2]
- (b) Describe the relationship between the two indices, supporting your answer with evidence from Fig. 1. [4]
- (c) Explain **three** limitations of the information shown in Fig. 1 for studying countries' level of development. [6]

Hydrologic Processes, Hazards and Management

Question 3 Either

Fig. 2 shows a model of how river channel characteristics change downstream.

- (a) Describe the channel morphology at the upstream end of the model shown in Fig. 2. [4]
- (b) Explain why average velocity increases downstream. [4]
- (c) Describe and explain the precautions you need to take when making accurate measurements of the discharge of a river. [4]

Urban Issues and Challenges

Question 3 Or

Fig. 3A shows the distribution of slums in Greater Mumbai (India) in 2008 and Fig. 3B shows some features of the urban structure of Greater Mumbai.

- (a) Describe the distribution of slums in Greater Mumbai shown in Fig. 3A. [3]
- (b) Outline the social and economic conditions that may characterise the slums of Greater Mumbai. [4]
- (c) Using Fig. 3B, explain the location of the upper income residential areas and the industrial area named Bhandup. [5]

Lithospheric Processes, Hazards and Management and Hydrologic Processes, Hazards and Management

Question 4 Either

Fig. 4 shows three types of mass movement.

- (a) Identify the types of mass movement shown in Figs. 4A and 4B. [2]
- (b) With reference to Figs. 4B and 4C, describe and explain the processes of mass movement shown. [6]
- (c) Explain how the mass movement processes in Fig. 4 will influence river processes and the channel features. [6]

The Globalisation of Economic Activity and Urban Issues and Challenges

Question 4 Or

Fig. 5 shows the spatial organization, in 2007, of Dell, the world's leading producer of computers.

- (a) Identify the city in Fig. 5 in which Dell's headquarters are located. [1]
- (b) Suggest two reasons why many of Dell's global operations are located in cities. [4]
- (c) List possible socio-economic implications of Dell's call centre on Manila. [2]
- (d) To what extent is a North-South divide evident in Dell's spatial organization? [7]

Section B

Answer **one** question from this section.

Each question carries 25 marks.

You should allocate your time accordingly.

Lithospheric Processes, Hazards and Management

Question 5 Either

(a) Describe the products of, and landforms associated with, volcanic activity found at convergent (destructive) plate boundaries. [9]

(b) To what extent can volcanic eruptions be predicted and prevented? [16]

Question 5 Or

(a) Describe how the forces of shear stress and shear strength contribute to the processes of mass movement. [9]

(b) Describe the landforms that have been developed in granite in the tropics and temperate areas. To what extent have climate, vegetation and weathering contributed to the development of these granite landforms? [16]

Hydrologic Processes, Hazards and Management

Question 6 Either

(a) Explain how human activities can affect the stores of water within a drainage basin. [9]

(b) Citing relevant examples, explain how the usage of water in trans-border river basins may result in conflicts of interest. Assess the strategies that have been employed to resolve them. [16]

Question 6 Or

(a) With the aid of diagram, describe and explain the components of a storm hydrograph [9]

(b) To what extent do you consider that rainfall events are the principal factor influencing the characteristics of storm hydrographs? [16]

Section C

Answer **one** question from this section.

Each question carries 25 marks.

You should allocate your time accordingly.

The Globalisation of Economic Activity

Question 7 Either

- (a) Describe the processes that contribute to globalisation. [9]
- (b) Examine the role of the state in the **location** of economic development. [16]

Question 7 Or

- (a) With reference to examples, explain the impact of a supranational body on a national economy. [9]
- (b) 'The process of globalization has advantaged some whilst disadvantaging others.' Discuss this statement with reference to examples. [16]

Urban Issues and Challenges

Question 8 Either

- (a) Give the meaning of the term *urbanisation* and discuss the relationship between urbanisation and urban growth. [9]
- (b) To what extent has state planning been responsible for the urban structure of cities? [16]

Question 8 Or

- (a) Outline and explain the growth of mega-cities. [9]
- (b) With the help of one or more examples, discuss how and why the Central City is changing. [16]



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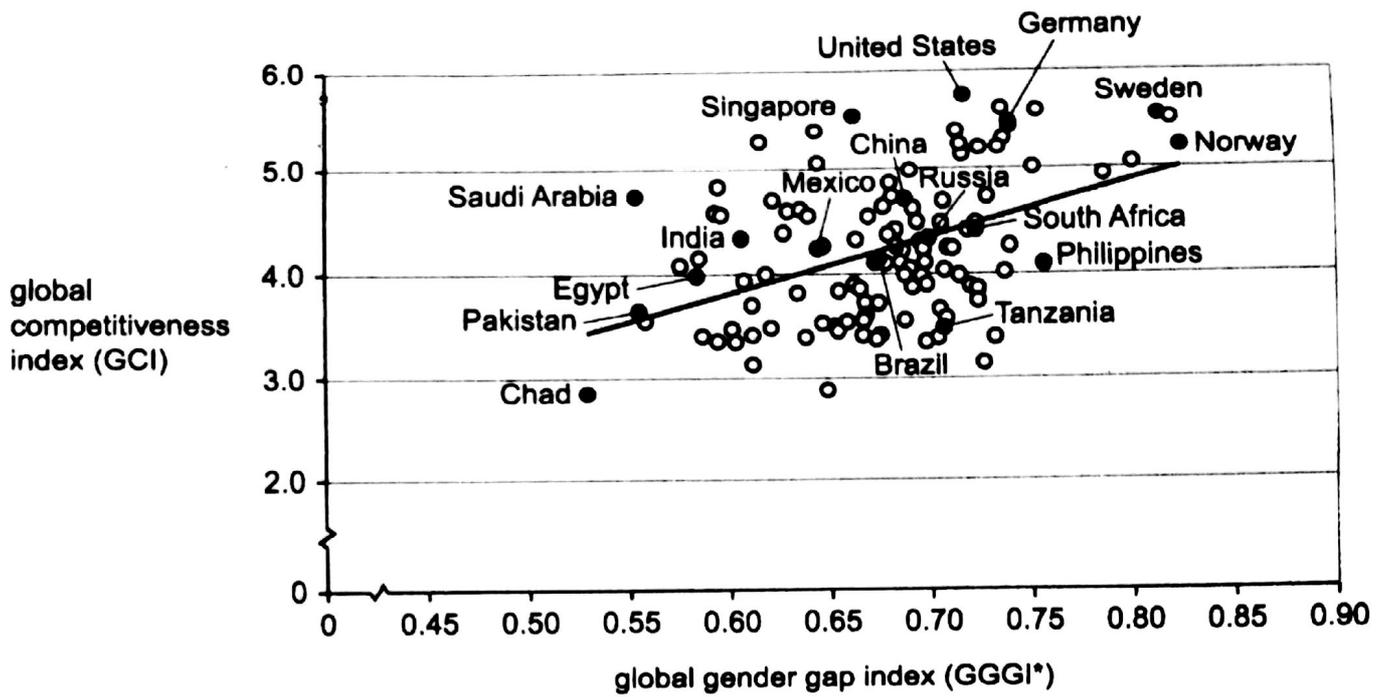
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This insert contains all the Tables, Figures and Photographs referred to in the question paper.

This document consists of **8** printed pages, including this cover page.

Fig. 1 for Question 2

Global gender gap index (GGGI), 2008 and the global competitiveness index (GCI), 2008–9



* In the GGGI the highest possible score of 1 means gender equality and lowest possible score of 0 means gender inequality.

Fig. 2 for Question 3 Either

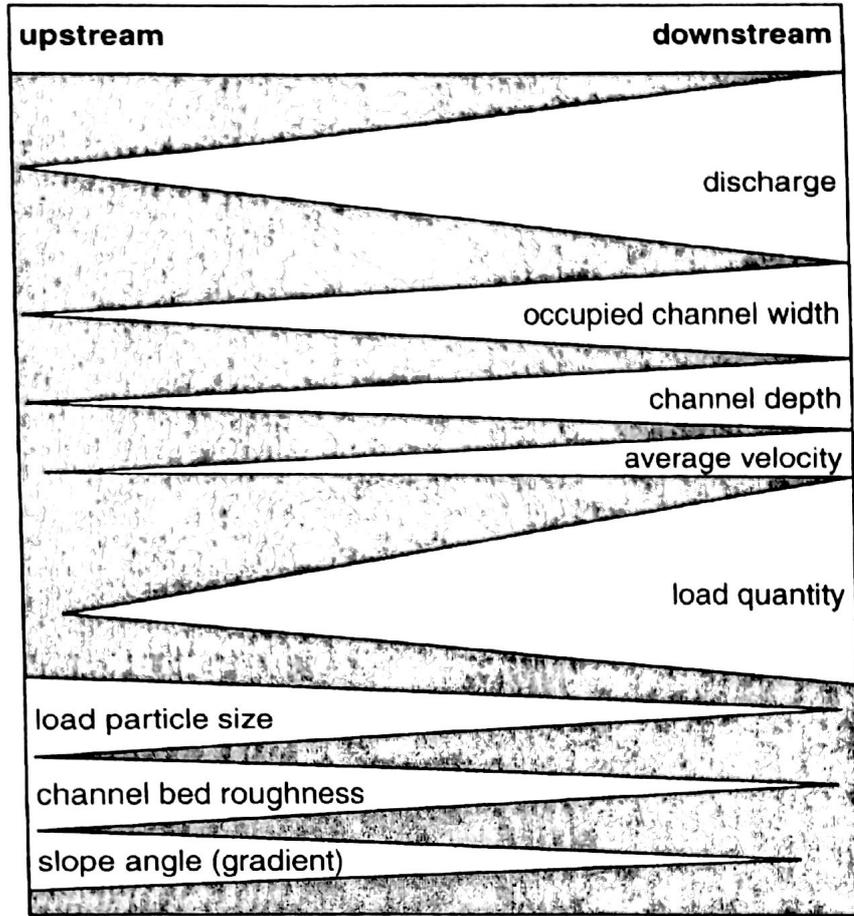


Fig. 3A for Question 3 Or

The distribution of slums in Greater Mumbai, India, in 2008

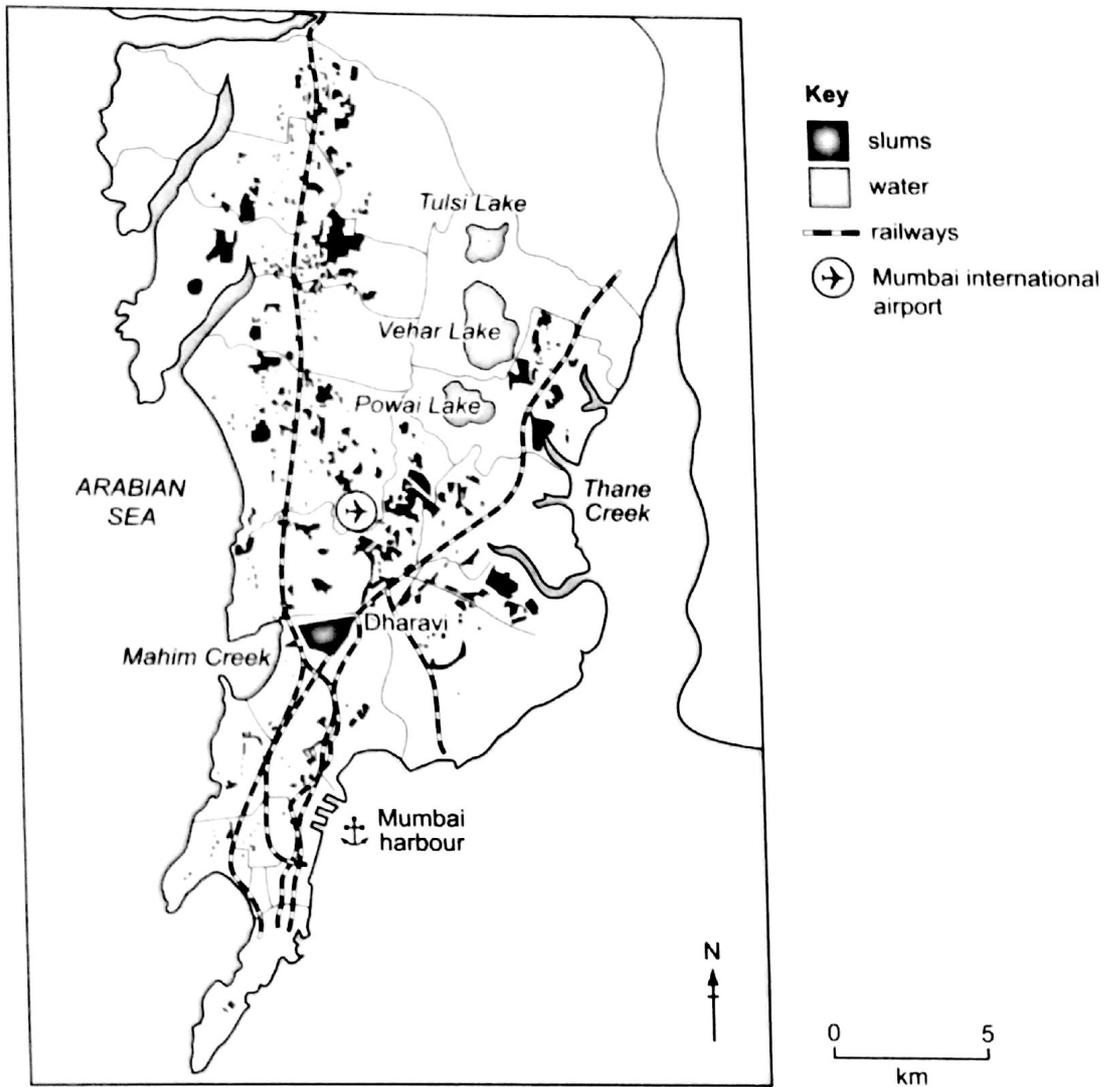
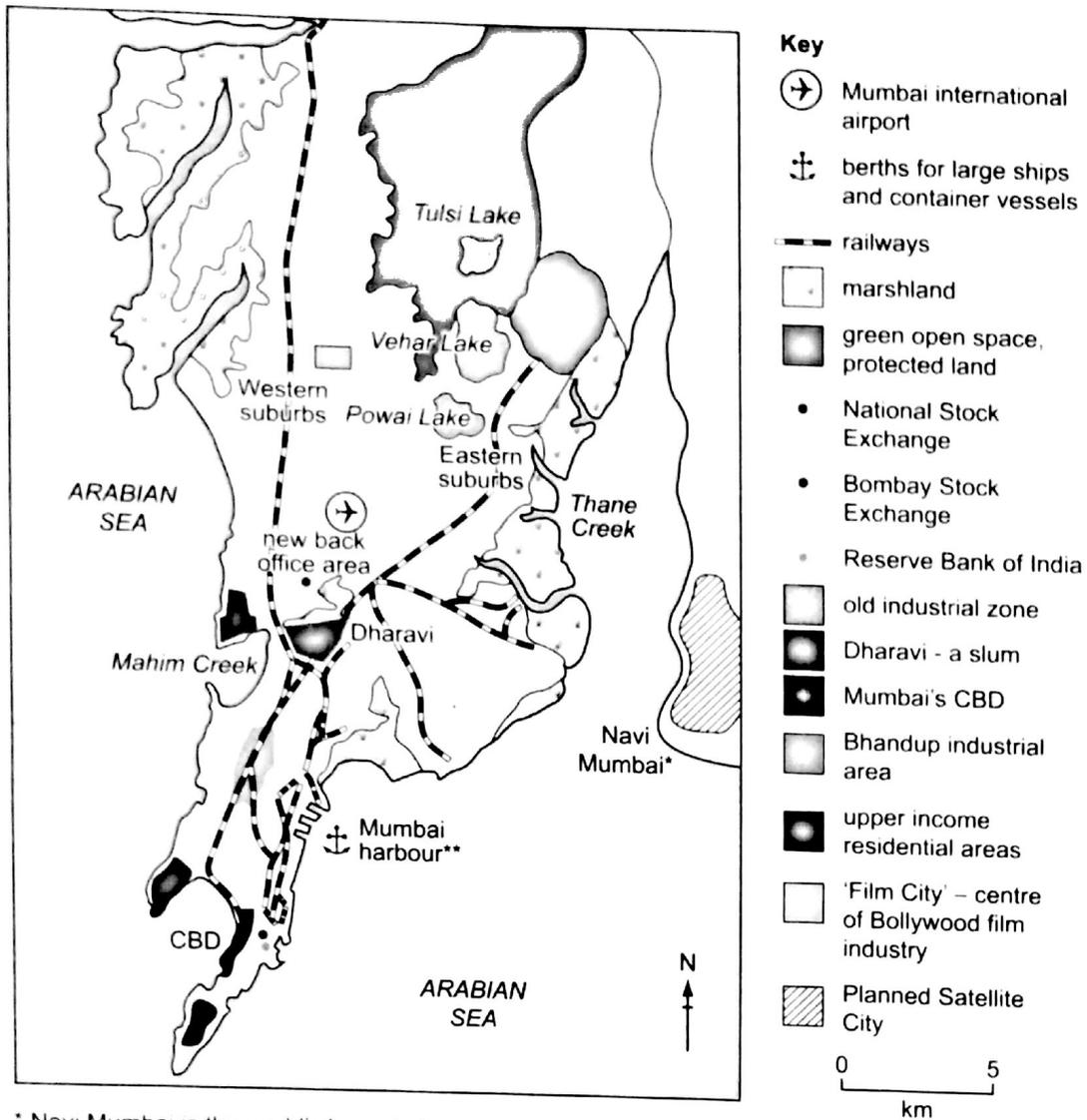


Fig. 3B for Question 3 Or

The urban structure of Greater Mumbai, India



* Navi Mumbai is the world's largest planned settlement, and is home to a Special Economic Zone (SEZ) as well as several large "software parks" where computer and IT companies have offices.

** Mumbai harbour handles 70% of India's maritime trade

Fig. 4 for Question 4 Either

Three types of mass movement

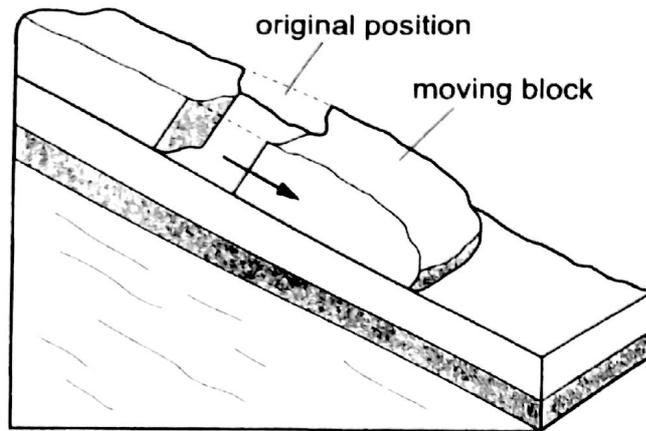


Fig. 1A



Fig. 1B

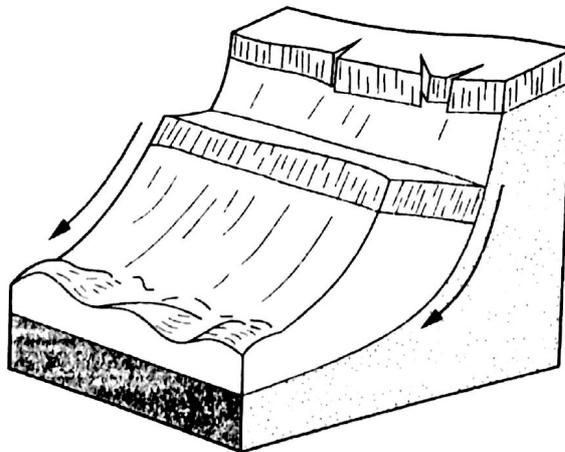
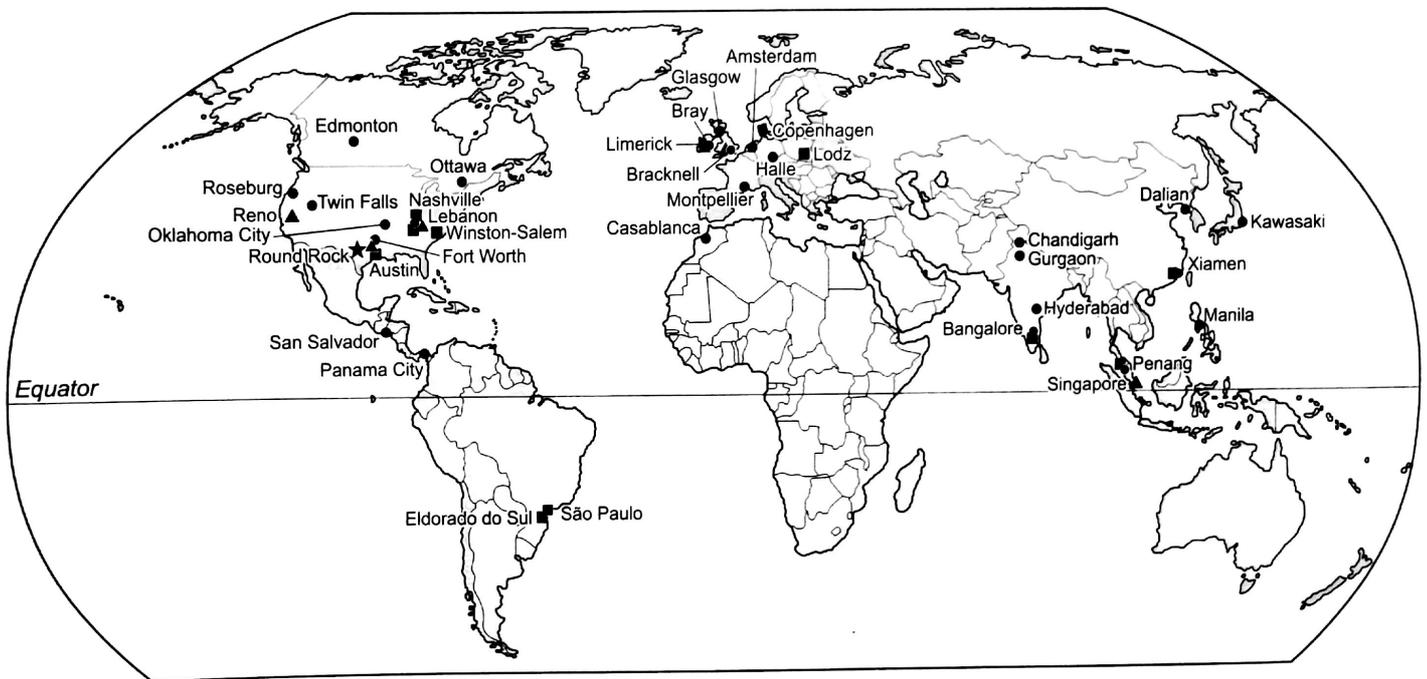


Fig. 1C

Fig. 5 for Question 4
Dell's spatial organisation, 2007



Key

□ north of the 'Brandt Line'
□ south of the 'Brandt Line'

★ headquarters
▲ data centre

■ manufacturing facility
● call centre