

JUNIOR LYCEUM ANNUAL EXAMINATIONS 2008
DIRECTORATE FOR QUALITY AND STANDARDS IN EDUCATION
Educational Assessment Unit

FORM IV

GEOGRAPHY OPTION

TIME: 1h 30 min

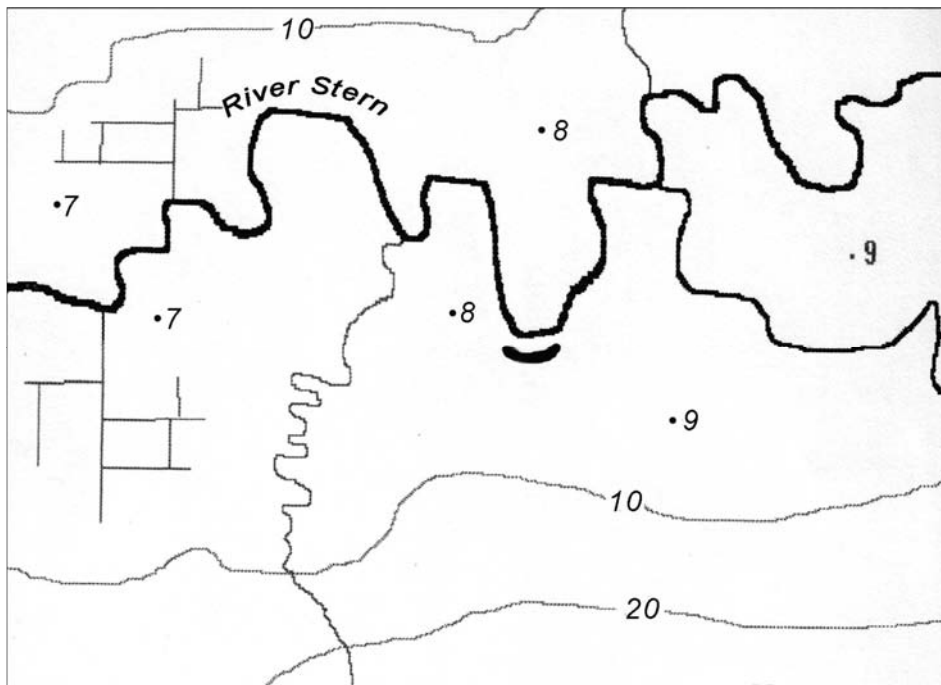
Name: _____

Class: _____

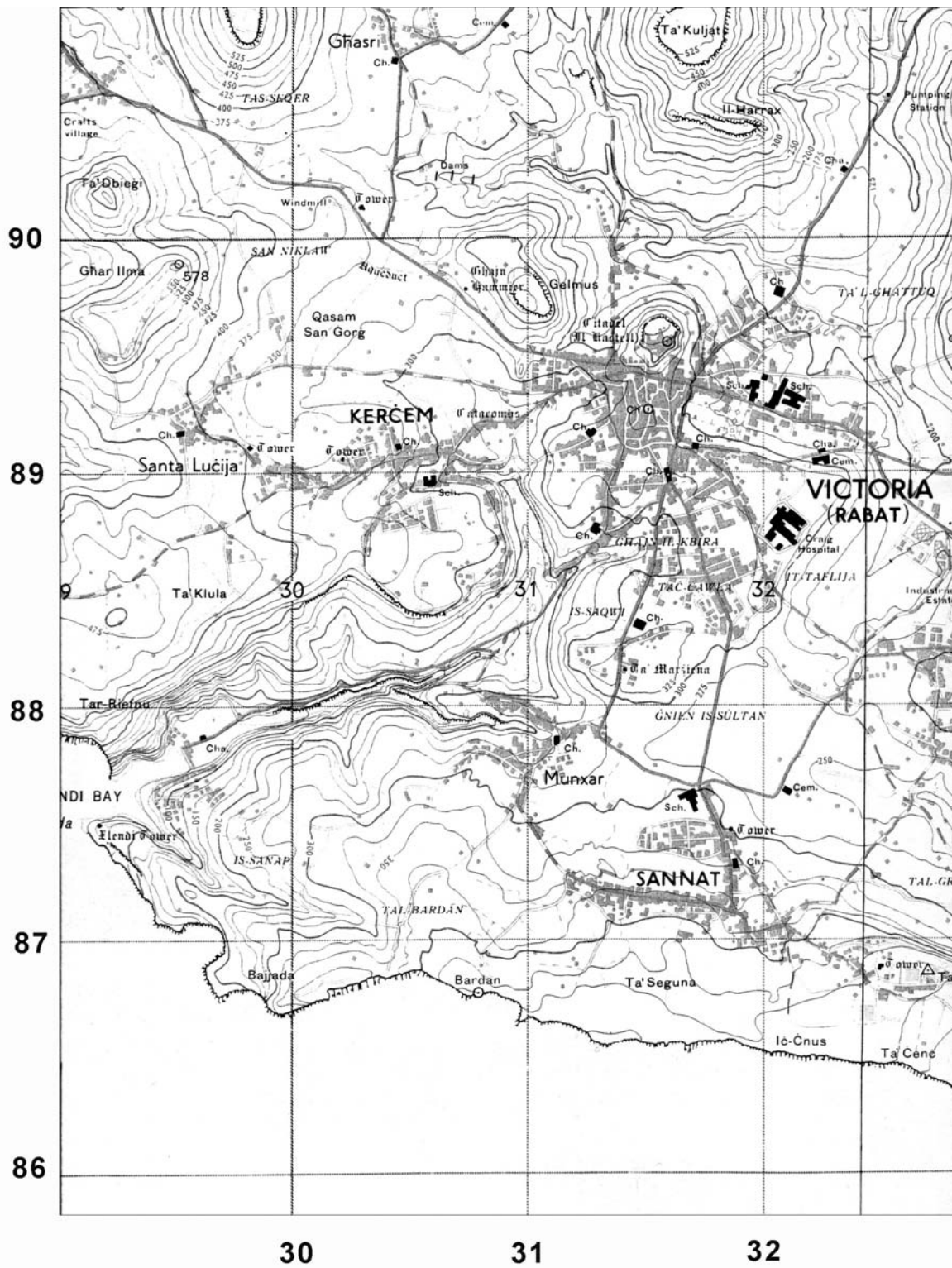
Answer ALL questions.

1. Map Reading and Interpretation

a. Examine the following map and then work out the exercise below.



- i. The river drawn on this map is in its course. 1 mark
 - ii. The spot heights indicate that the river is flowing to the 1 mark
 - iii. On the map itself mark the following features – meander, floodplain, ox-bow lake 3 marks
- b. Refer to the OS Map showing part of Gozo and then fill in the details below.
- i. Give the six figure grid reference for the historical centre of Victoria
..... 1 mark



ii. Give reasons to explain why Victoria became such an important settlement in Gozo. Refer to evidence from the OS Map given.

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.....
.....

2 marks

iii. Give the six figure grid reference of Santa Lucia

1 mark

iv. 'The area around Santa Lucia is still in a rural state.' Indicate the map evidence which supports this statement.

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.....

2 marks

v. In the space below reduce to half size the area covered by the four grid points:

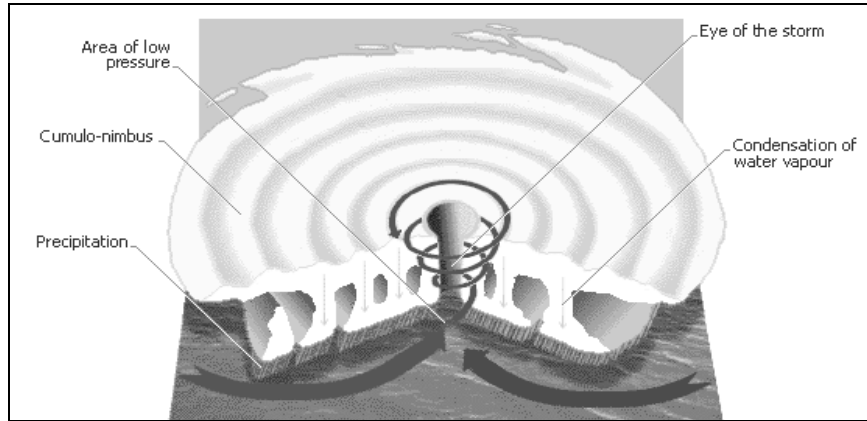
30 90; 30 88; 32 90; 32 88

Then draw the **main roads** within this reduced section of the given OS Map.



4 marks

2. Weather and Climate



a. Work out the exercise below related to tropical cyclones or hurricanes.

i. Explain the **origin** of a typical tropical storm such as that of Katrina that hit New Orleans during August 2005.

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3 marks

ii. What were the main destructive effects of Hurricane Katrina?

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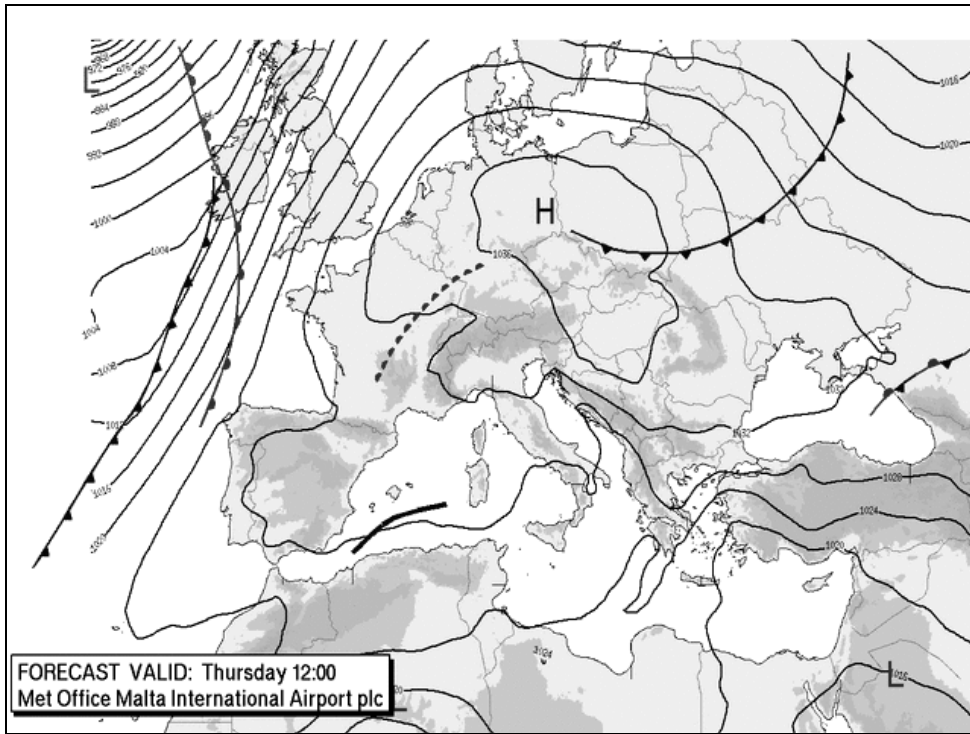
2 marks

b. Examine carefully the given weather map:

i. Mark on the diagram the position of the following :

- a. Warm Front
- b. Cold Front
- c. Occluded Front
- d. Depression

4 marks



ii. Explain how the isobars are showing that the weather over Germany is different than the weather of the United Kingdom?

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4 marks

iii. Give the main details regarding the weather of the Maltese Islands as shown by the given map.

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2 marks

3. Landforms and Processes

a. Calculate the timings for the following locations when at the Prime Meridian the time is 12.00 noon.

Country/City	Time calculated on longitude	Time
Malta	15 degrees east	
Canberra Australia	150 degrees east	
Vancouver Canada	120 degrees west	
Fiji	180 degrees east	
Mexico City	90 degrees west	

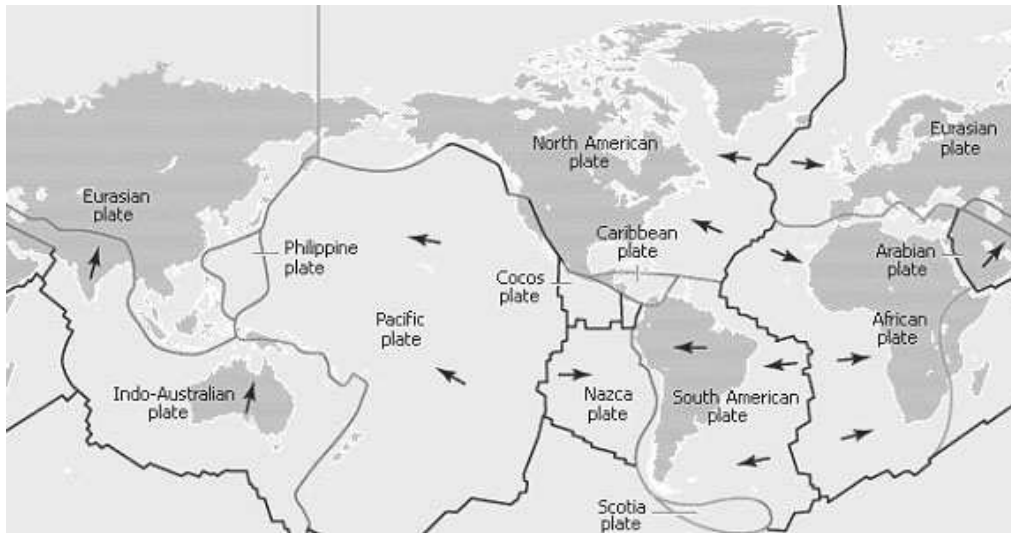
5 marks

b. Give the main characteristic for each of the three horizons forming a typical soil profile.

- i.
- ii.
- iii.

3 marks

c. Explain the diagram showing the earth's major plates.



.....

2 marks

d. Fill in the blanks to complete the details regarding **Conservative Plate** Boundaries:

- i volcanic activity at this type of boundary
- ii One plate is simply past the other.
- iii Sections of rock get and are dragged past each other.
- ivbuilds up and the rocks jerk causing an earthquake.

2 marks

The Kobe earthquake hit Japan on January 17, 1995 at 5:46:46 a.m. and lasted for approximately 20 seconds. This earthquake measured 7.3 on the Richter magnitude scale. The focus of the earthquake was located 16 km beneath its epicentre, on the northern end of Awaji Island, 20 km away from the city of Kobe (a very populated city) with a population of 1.5 million. This is in the middle of the fault zone of the Pacific, the Eurasian and the Philippine tectonic plates.

e. Describe the primary and secondary effects of the Kobe earthquake that hit Japan in 1995.

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3 marks

f. Explain the following processes by which a river erodes its banks and bed –

- i. Corrasion or abrasion
-
- ii. Attrition
-
- iii. Hydraulic Action
-

3 marks

g. Link the following processes by which a river transports its load to the statements given below:

Traction, Suspension, Solution, Saltation

Process of river transport by which materials are held dissolved within the water:

.....

Process of river transport by which particles are held within the water:

Process of river transport by which particles are rolled along the bed of the river:

.....

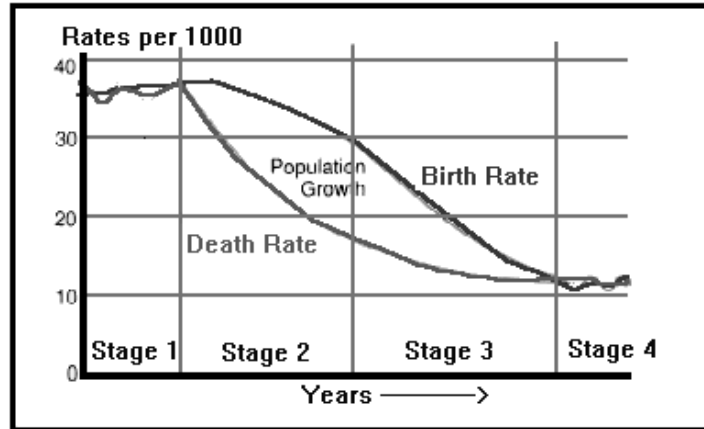
Process of river transport by which small particles bounce along the bed:

.....

2 marks

4. Socio-Economic Human Systems

The Demographic Transition



a. Associate one country for each of the four stages shown above in the Demographic Transition model –

Stage 1

Stage 2

Stage 3

Stage 4

2 marks

b. Explain the reasons that led to the great fall in death rate in Stage 2 of the Demographic Transition Model.

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2 marks

c. Write a short paragraph to link the following Geographical Terms regarding Urban Settlements:
good accessibility, CBD, high land values, dense traffic, high density of services

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4 marks

d. Imagine that you have visited Rio de Janeiro. List four aspects that you have observed which indicate rapid urban growth within this city in Brazil.

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-
-
-

4 marks



e. Explain briefly the meaning of Organic Farming -

-
-
-

3 marks

f. Fill in the following table to show the three main differences between farming in Denmark and farming in the Ganges Valley India:

Denmark	India

3 marks

g. Give the meaning of the term CAP in relation to the European Union.

-
-

2 marks

5. Environmental Concerns

a. List four measures that farmers can take to minimise soil erosion within the area where they grow crops or rear animals.

-
-
-
-

4 marks

Wetland means simply land that is wet, land that is saturated with water. The fens and moors of Europe, the waterholes of the African Savannah, the bogs, marshes, ponds and wet meadows of western Washington - all of these are wetlands.

b. Explain the problems created when wetlands are drained for farming:

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5 marks

c. Examine the following details about the Three Gorges Dam being built in China.

Some facts about the Three Gorges project:

Project expected to take 17 years; completion expected in 2009. An estimated 250,000 workers are involved in the project.

The Three Gorges Reservoir will inundate 632 square kilometres of land. An estimated 1.2 million people will be resettled by the dam.

The project's 26 hydropower turbines are expected to produce 18.2 million kilowatts, up to one-ninth of China's output.

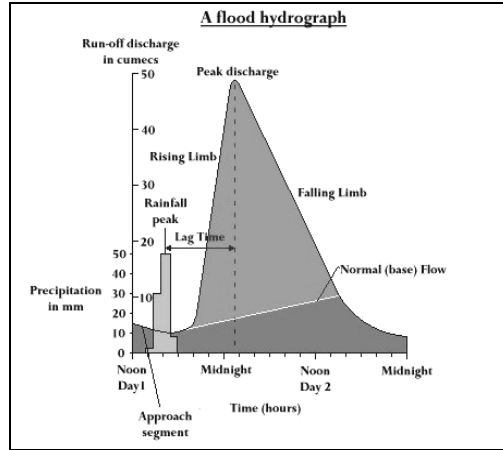
The amount of concrete totals 26.43 million cubic meters, twice that of the Itaipu project in Brazil, currently the world's largest hydroelectric dam.

Give two advantages and two disadvantages of the Three Gorges Dam.

Advantages	Disadvantages
<p>.....</p> <p>.....</p>	<p>.....</p> <p>.....</p>
<p>.....</p> <p>.....</p>	<p>.....</p> <p>.....</p>

8 marks

d. Examine the following hydrograph and then fill in the missing details below:



1. is the velocity of the river multiplied by its volume. It is the amount of water in the river passing a given point at a given time, measured in cubic metres per second. It depends upon the river's velocity and volume.
2. is the speed of the river. It is measured in metres per second.
3. is the amount of water in the river. It is the cross-sectional area of the river's channel measured in square metres. 3 marks

6. Location and Places

Refer to the given map of the world.

With the help of the clues and the numbers marked on the given map of the world name the following nine physical features and one human feature.

1. The mountains of the reach into seven countries namely Venezuela, Colombia, Ecuador, Peru, Bolivia, Chile, and Argentina.
2. The chain of mountains extends in an arc of about 2,400 km from the River Indus in northern Pakistan eastwards to the Brahmaputra River, across Kashmir in northern India, part of southern Tibet, most of Nepal, the Indian state of Sikkim, and Bhutan.
3. The mountain range is located mostly in South Africa. It extends for about 1,125 km from Mpumalanga to Eastern Cape Province, and forms the eastern boundary of Lesotho and, in part, of the Free State.
4. The river, of northern South America, largely in Brazil, is ranked as the largest in the world in terms of catchment area, number of tributaries, and volume of water discharged.
5. The is the longest river in the world, measuring 6,671 km from its remotest headstream in Burundi to its mouth at the Mediterranean Sea.
6. The basin of theRiver covers a total area of 1,061,469 sq km extending into New South Wales, Victoria, Queensland, South Australia, and the Australian Capital Territory, covering one seventh of the continent.

7. dam is a joint undertaking between Brazil and Paraguay. The dam commenced operations in 1984 and the last of its turbines was installed in 1991.
8. Mount is an active volcano in the Philippines. It is almost 90 km north of the capital, Manila.
9. The highest mountain in Africa is the volcano in north-eastern Tanzania, near the border with Kenya.
10. The volcano in central Ecuador is situated in the Andes, near Quito. It is one of the highest active volcanoes in the world.

10 marks

