FORM 4 GEOGRAPHY (OPTION) TIME: 1h 30min

Name: __________________________________________     Class: _______________

Instructions to candidates

Answer all questions in the space provided. Write your answers neatly and in good English. Credit will be given for relevant illustrations. The marks for individual questions are shown in brackets e.g. (4). There are 9 questions in all. The total mark for this paper is 90. The use of blank paper, pieces of string and calculators is allowed.

Examiner’s use only.

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<th>Written Exam</th>
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<tr>
<td>Maximum Mark</td>
<td>12</td>
<td>8</td>
<td>12</td>
<td>12</td>
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<td>8</td>
<td>12</td>
<td>9</td>
<td>9</td>
<td>90</td>
<td>10</td>
<td>100</td>
</tr>
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</table>

Score

Question 1

Examine carefully the topographical (OS) map 1:25000 given as a separate sheet and then work out the given exercise.

a. In which direction do the Islands of St. Paul lie from Bugibba?
   Underline the right answer. (South east; North east; South; North west) (1)

b. Give one reason why many locals and tourists like to visit areas found to the north of Marfa Ridge.
   ________________________________________________________ _____________________ (2)

c. What is the difference in height between the coastline at Iċ-Ċumniņja and that at Mellieha Bay?
   ________________________________________________________ _____________________ (2)

d. What is the four figure grid reference of Santa Maria Estate? Underline the right answer.
   (4280; 4379; 4481; 4085) (1)

e. Give the six figure grid reference for Marfa Point. Underline the right answer.
   (394829; 404829; 394819; 394609) (1)
f. How do the contours on the map indicate that Mistra 440790 is a valley?
______________________________________ (1)

g. Give one reason to explain the site of Mellieha at GR 4279.
__________________________________________________ _____________________
___________________________________________________ __________________ (2)

h. In the given space, reduce to half size the grid boxes 4580 and 4680. Use letter A to mark the location of St. Paul’s Islands and letter B to locate Blata l-Bajda Point.

1:50,000

Question 2

Refer to the world map on page 3 and name the following, choosing the given names.

Surtsey; Kilimanjaro; Mt. St. Helens; Cotopaxi; Etna; Nevada del Ruiz;

Volcanoes
a. _______________________________ b. _________________ 
   c. _______________________________ d. _________________ 
   e. _______________________________ f. _________________ 
(6)

Eurasian; Pacific; Nasca

Tectonic Plates
X _______________________________ Y _______________________________ 
(2)
Question 3

a. Fill in the blanks with the given words to show the main features of hurricanes.

_rose; oceans; vapour; westwards; 27 degrees; warm_

Hurricanes develop over warm tropical ______________________ and where sea temperatures exceed ______________________

Celsius over a vast area and where there is a considerable depth of ______________________ water. They appear to originate when a strong vertical movement of air draws with it water ______________________ from the ocean below. As the air ______________________ in a spiral movement, it cools and condenses.

This heat energy powers the storm and causes it to move_____________________.  (6)
b. The three types of rainfall are Convectional, Frontal and Relief. Name the two types of rain that fall on the Maltese Islands.

______________________________    ________________________________ (2)

Draw a labelled diagram to explain **one of the two types of rain that falls on the Maltese Islands.**

Question 4

Fill in the right geographical term in the blanks.

a. The individual pieces of crust are called ____________________.

b. ____________________ mountains will form at destructive plate boundaries.

c. The oceanic crust is much younger than the continental crust for it is being lost through the ____________________ zone and new crust is forming at constructive plate boundaries.

d. At ____________________ plate boundaries there is no volcanic activity.

e. The ____________________ waves that occur during an earthquake are the most destructive.

f. The ____________________ is a measure to calculate the energy released by the earthquake from scale 0 to 9.

g. ____________________ volcanoes have erupted very recently. (7)

h. What are the advantages of living in volcanic areas in spite of the risk from an eruption?

______________________________________________________  
______________________________________________________  
______________________________________________________  
______________________________________________________  (2)
i. Draw a labelled diagram of one type of plate boundary.

![Diagram](image)

(3)

**Question 5**

Explain any **four** of these geographical terms related to erosion by rivers and the resultant features.

a. Abrasion ____________________________________________________________

b. Solution ____________________________________________________________

c. Saltation ____________________________________________________________

d. Plunge pool _________________________________________________________

e. Small river cliff _____________________________________________________

f. Slip off slope ________________________________________________________

g. Gorge ______________________________________________________________

h. Ox-bow lake _________________________________________________________

(8)
Question 6

Write a paragraph on either **shifting** or **plantation farming** in Brazil.

___________________________________________________

___________________________________________________

___________________________________________________

___________________________________________________

___________________________________________________

(8)

Question 7

Examine the Demographic Transition Model below and link the stages 1 to 5 with the related information.

Demographic Transition Model

<table>
<thead>
<tr>
<th>Information</th>
<th>Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total population is high but going into decline due to an ageing population. There is a continued desire for smaller families, with people opting to have children later in life.</td>
<td></td>
</tr>
<tr>
<td>High birth rates and death rates result in a fluctuating but low population growth due to famine, disease or war.</td>
<td></td>
</tr>
</tbody>
</table>
Total population is still rising rapidly. The gap between birth and death rates narrows due to the availability of contraception and fewer children being needed to work - due to the mechanisation of farming. The natural increase is high.

Total population rises as death rates fall due to improvements in health care and sanitation. Birth rates remain high.

This is a period of very slow population growth with birth and death rates stabilized at a low level.

At which stage of the Demographic Transition Model would you place the tribes of the Amazon Basin of Brazil, and why?

___________________________________________________________________________

___________________________________________________________________________ (2)

**Question 8**

Explain how the following three farming practices can reduce soil erosion.

a. Contour ploughing

___________________________________________________________________________

___________________________________________________________________________

___________________________________________________________________________

b. Controlled grazing

___________________________________________________________________________

___________________________________________________________________________

___________________________________________________________________________

c. Crop Rotation

___________________________________________________________________________

___________________________________________________________________________

___________________________________________________________________________

(9)
Question 9
Refer to the given terms to explain three methods by which flooding in Bangladesh and in other parts of the world can be reduced.

silt; embankment; trees; dam

1. ________________________________________________ _______________________
   ____________________________________________________ _____________________
   ____________________________________________________ _____________________

2. ________________________________________________ _______________________
   ____________________________________________________ _____________________
   ____________________________________________________ _____________________

3. ________________________________________________ _______________________
   ____________________________________________________ _____________________
   ____________________________________________________ _____________________

(9)

End of Paper