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 round brackets: e.g. (4). There are 8 questions in all. The total mark for this paper is 90. The use of blank paper, pieces of string and calculators is allowed.

For Examiner’s use only

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<td>Max. Mark</td>
<td>12</td>
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1. Study Figure 1 Ordnance Survey map Malta West extract of 1:25000 or 4cm:1km and underline the right answer in the brackets:

a. Qammieh Point (387812) is to the (north, east, north-west, north-east) of Ras in-Niexfa (401801). (1)

b. Santa Maria Estate is in grid square (4181, 4280, 4379, 4478). (1)

c. The 6-figure grid reference of Ras il-Qammieh trigonometrical station is (392813, 399819, 404778, 435832). (1)

d. The straight line distance from Dahlet ix-Xilep point (438829) to Ras il-Griebeğ (441811) is (0.5, 1.25, 1.5, 1.75) kilometres. (1)

e. The distance along the coast between the two same places is (6.35, 7.35, 8.35, 9.35) kilometres. (1)

f. If you draw a line with pencil and ruler from Dahlet ix-Xilep point to Ras il-Griebeğ, the area of Mellieha Bay will be (3, 4, 5, 6) km². (2)

g. The coast between Qammieh Point and Ċirkewwa is made up mostly of (sand, mud, gentle slope, boulder rock). (1)

h. Historical monuments and places are usually written in Gothic writing or font. A historical place in grid square 4283 is (Selun Palace, White Tower, il-Hofra, il-Marbat). (1)
i. The symbol or feature at 417791 shows us that there is a (quarry, hotel, swimming pool, football ground) in Mellieha.

j. The street pattern in the older parts of Mellieha (4280) is (radial, linear, grid, dispersed).

k. While walking from Red Tower (408816) to Biskra (410807) a person would be going (uphill, downhill, uphill and downhill, downhill and uphill).

2. Look at Figure 2 World Map in page 3 and then name the following:

a. major BIOMES - Choose from:  **hot desert, taiga (coniferous forest), savanna grassland, tropical rainforests**

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A ____________________  B ____________________
C ____________________  D ____________________
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b. major PORTS - Choose from:  **Sydney** **Shanghai**

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1 ____________________  2 ____________________
3 ____________________  4 ____________________
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(8)

2. Look at Figure 3 – line and bar graphs showing monthly temperature and rainfall in Kayes, Senegal, which has a tropical continental (savanna) type of climate and then choose the correct answer in the brackets:

[Figure 3 – line and bar graphs for monthly temperature and rainfall in Kayes, Senegal]
Figure 2 for question 2

WORLD MAP
a. The hottest month is (February, May, September, December).  

b. It is the hottest month since (it is summer, it is winter, the sun is overhead and skies are cloudless, the sun is nearer).

c. The wettest season in Senegal is (spring, summer, autumn, winter).

d. The total rainfall is about (540, 740, 940, 1040) mm.

e. July, August and September are cooler than springtime since the sky is (clear, blue, misty, cloud-covered).

f. There is no rainfall from January to April since the overhead sun lies in the southern hemisphere and the northern savanna is under a (high, low, normal, calm) pressure area.

g. Another country outside Africa where a tropical continental (savanna) type of climate can be found is (Sweden, Canada, Brazil, Chile).

h. The trees and plants of the savanna are able to resist (rain, floods, fire, drought).

4. Study Figure 4 Diagram of the Earth with lines of day and night, and then answer the questions or choose the correct answer from the brackets:

*Figure 4 – The Earth with lines of day and night*

a. What are the following important lines of latitude? Choose from:
southern tropic (Capricorn); northern tropic (Cancer); Arctic Circle; Equator

i. Q-E __________________________

ii. R-T __________________________

iii. D-C __________________________

iv. G-H __________________________

4

b. The earth is in this position as shown in Figure 4 on the 21st of (March, June, September, December).
c. When the earth is in this position, days in Malta are (longer than, shorter than, equal to) nights. (1)

d. According to the position of the earth as in Figure 4, the length of the night in places South (S) of line K-L is (0, 8, 16, 24) hours. (1)

e. This is so because those places are rotating (facing, near, away from, under) the sun. (1)

5. Study Figure 5 Landscape eroded by Ice: Before and After glaciation and then answer the questions.

**Figure 5 – Landscape eroded by Ice: Before and After glaciation**

a. Here are 12 features of landscape. Underline **four (4)** that are the effect of erosion by ice and are visible in the ‘after glaciation’ diagram:

- rounded mountain tops
- sand
- caves
- wave-cut platform
- cirques (corries)
- glacial trough (U-shaped valley)
- barchan
- mudflow
- waterfalls
- inselberg
- isthmus
- peninsula

(4)
b. Fill in the blanks of the following paragraph about MORAINES. Choose from the list below:

- ground; medial; lateral; rock; glacier; terminal; ice; meet

MORAINES

Valley glaciers undercut the valley sides, and fragments of _____________ fall on the sides of the _____________ to form a ridge of loose material called a _____________ moraine.

When two valley glaciers _____________, two lateral moraines join to form _____________ moraine. The material carried along underneath the _____________, together with rock waste that falls through the crevasses, forms the _____________ moraine.

At the end of a glacier, the accumulation of eroded material is known as the _____________ moraine.

6. Write each term in the list below near its correct definition.

Terms: high technology industry; science park; deindustrialisation

a. In more economically developed countries, factories are now smaller and more people work in the tertiary (services) type of industry. _________________________

b. An industry where computers are largely built or used or where work includes micro-electronics. _________________________

c. An estate, often with an edge-of-city location, or a newly planned city, with high-tech industries and a university link. _________________________ (6)

7. Study Figure 6 the Plan of Cambridge Science Park in page 7, and then answer the following questions by choosing the 14 correct answers from the list of 27 terms below:

List: Effingham; trees; lake; skyscraper; sea; landscaped areas; desert; 16; 12; 30; 24; heavy; small; drugs; toys; clothes; furniture; pharmaceuticals; electronics; scientific instruments; bricks; M11; M4; railway; airport; A25 Burns Rd; A10 Milton Rd

a. Which three main transport links connect Cambridge Science Park to London or other regions?
   _________________________  _________________________  _________________________ (3)

b. How many companies operate at the Science Park? (see the bar graph) _________ (1)

c. How many companies employ less than 20 people? _________ (1)
d. Would you say that these industries are heavy or small? ________________  (2)

e. Mention **three** features that make the environment in the Science Park pleasant.
    ________________  ________________  ________________  (3)

f. Mention **four** major products of Cambridge Science Park.
    ________________  ________________  ________________  ________________  (4)

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**Figure 6 – Plan of Cambridge Science Park**
8a. Fill in the columns below with the following elements of ecosystems:

- fauna; solar energy; climate; flora; rocks and soil; people

<table>
<thead>
<tr>
<th>Non-living environments</th>
<th>Living environments</th>
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<tbody>
<tr>
<td>_______________</td>
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(6)

b. Here are four trophic levels of a food chain. Write two examples of living elements for each trophic level. Choose from:

- fungi; leaves; rabbit; green plants; bacteria; weasel; caterpillar; owl

<table>
<thead>
<tr>
<th>Producers</th>
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<tbody>
<tr>
<td>Herbivores</td>
<td>_______________</td>
<td>_______________</td>
</tr>
<tr>
<td>Carnivores</td>
<td>_______________</td>
<td>_______________</td>
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<tr>
<td>Decomposers</td>
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(8)

c. Name two examples of global ecosystems (biomes).

_________________________          _________________________

(4)