



**Annual Examinations for Secondary Schools 2014**

**FORM 4 GEOGRAPHY (OPTION) Marking Scheme**

The aim of this Marking Scheme is to ensure a greater degree of objectivity in marking the examination papers. However, when answers different from those listed below are given, it is at the discretion of the teacher whether to give the marks or not.

Question	Marks	Breakdown of marks	Answer
<b>1</b>	<b>12</b>		
a	4	1 mark for each name of two buildings 1 mark for each grid reference	<i>Any two of the following names:</i> <ul style="list-style-type: none"> <li>• Museum 861049</li> <li>• College 854046</li> <li>• Hospital 868058</li> <li>• School 847050</li> <li>• Leisure Centre 853043</li> <li>• Hotel 874059</li> </ul> <i>Accept any other relevant answer.</i>
b	3	1 mark for grid reference. 1 mark for measure in cm. 1 mark for measure in km.	- 804040 or 805040 - Accept any answer from 3.6 km to 4.2 km.
c	2	1 mark for named activity and 1 mark for evidence	<i>Any two answers from:</i> <ul style="list-style-type: none"> <li>• Farming – names of farms as Old Park Fm and Cobnor Fm.</li> <li>• Forestry – Oldpark Wood, Oakwood.</li> <li>• Tourism – hotel, leisure centre, caravan site.</li> </ul> <i>Accept any other relevant answer.</i>
d	3	1 mark x 3	1 mark for the enlarged grid box with grid references. 1 mark for the drawing of the coastline and secondary road. 1 mark for the position of the farm.
<b>2</b>	<b>8</b>		
a	6	1 mark x 6	1. Pinatubo 2. Fuji 3. Mt St. Helens 4. Paracutin 5. Rocky 6. Andes

b	2	1 mark x 2	Plate 7 – Pacific Plate 8 – Nazca
<b>3</b>	<b>12</b>		
3	12	1 mark x 12	<p><b>Depression:</b></p> <ul style="list-style-type: none"> <li>- Low Pressure</li> <li>- Cloudy, rainy and windy weather</li> <li>- Anticlockwise</li> <li>- Strong winds</li> <li>- Winter</li> <li>- Warmer air from the south (tropical maritime air) meets cooler air from the north (polar maritime air) and rises gradually over it. These low-pressure systems often begin in the Atlantic, moving eastwards toward Europe.</li> </ul> <p><b>Anticyclones:</b></p> <ul style="list-style-type: none"> <li>- High Pressure</li> <li>- Settled, dry, fine weather</li> <li>- Clockwise</li> <li>- Light winds</li> <li>- Summer</li> <li>- An anticyclone is an area of high atmospheric pressure where the air is sinking. As the air is sinking, not rising, no clouds or rain are formed. This is because, as the air sinks, it warms, meaning it can hold more water.</li> </ul>
<b>4</b>	<b>8</b>		
a	6	<p>1 mark x 2</p> <p>1 mark x 2</p>	<p><i>Any two relevant points for each from:</i></p> <p><b>Crust:</b> The crust is solid. It is the layer we live on. The crust is usually between 10km and 60km thick.</p> <p><b>The Mantle</b> It is the widest section of the Earth. It has a thickness of approximately 2,900 km.</p>



			<p>whole thing collapses due to gravity and its own weight. The whole process then occurs again.</p> <p><b>Gorges</b> – A steep sided valley forms when a waterfall retreats.</p> <p><b>Interlocking spurs</b> – As the river erodes the landscape in the upper course, it winds and bends to avoid areas of hard rock. This creates interlocking spurs.</p> <p><b>Meanders</b> – As the river erodes laterally, to the right side and then to the left, it forms large bends and then horseshoe-like loops called meanders. The formation of meanders is due to both deposition and erosion and meanders gradually migrate downstream.</p> <p><b>Ox-bow lakes</b> – Over time the bend of the meander becomes tighter, until the ends become very close together. As the river breaks through, as during a flood, when the river has a higher discharge and more energy, the ends join. The loop is cut off from the main channel. The cut-off loop is called an ox-bow lake.</p> <p><b>Flood plain</b> – A flood plain is the area around a river that is covered by water in times of flood. A flood plain is a very fertile area due to the rich alluvium deposited by floodwaters. This makes flood plains a good place for agriculture.</p> <p><b>Deltas</b> – Deposition at the mouth of a river can form deltas. A delta is formed when the river deposits its material faster than the sea can remove it. There are three main types of delta, named after the shape they create.</p>
<b>6</b>	<b>8</b>		
6	8	1 mark x 8	<ul style="list-style-type: none"> <li>• <b>Physical inputs</b> – <i>One of:</i> land, climate, relief, water, drainage.</li> <li>• <b>Human inputs</b> – <i>One of:</i> capital, government policies, transport, buildings, machinery, fertilisers, knowledge, skills, electricity.</li> <li>• <b>Processes</b> – <i>Three of:</i> seeding, ploughing, harvesting, fertilising, shearing, digging, spraying.</li> <li>• <b>Positive Outputs</b> – <i>Two of:</i> eggs, wool, animals, leather, straw, hay, manure, fruits, cereals, money.</li> <li>• <b>Negative outputs</b> – <i>One of:</i> water pollution from pesticides, dead animals, loss of natural vegetation, pesticides kill all insects.</li> </ul> <p><i>Accept any other relevant answers.</i></p>

<b>7</b>	<b>12</b>		
7	12	2 marks x 6	<p>a. Peru – Stage 2</p> <p>b. Stage 1 means a high birth rate and a high death rate both around 35 per 1000. This means a relatively slow population growth. The people living at this stage have little knowledge about how to reduce the death rate so still affected by diseases, poor health care, poor water quality, and a poor food supply.</p> <p>c. The death rate falls in Stage 2 due to improvements in health care, sanitation and water quality. There is also increased access to medicines and food.</p> <p>d. The fall in the birth rate in Stage 3 is due to better access to contraception, more family planning education, working women getting married and having children later, less need for children as a labour source.</p> <p>e. In stage 4 both the birth rate and the death rate are under 10 per 1000. There may be some annual fluctuations, but population growth remains close to zero.</p> <p><i>OR</i></p> <p>The birth rate and the death rate are similar, both low.</p> <p>f. The death rate would be higher than the birth rate in Stage 5.</p>
<b>8</b>	<b>8</b>		
8	8	2 marks for each point	<p><i>Any four relevant points.</i></p> <p><b>Pollution:</b></p> <ul style="list-style-type: none"> <li>- The increased use of pesticides and fertilisers has led to air and water pollution.</li> <li>- Chemicals used on the fields are easily washed into rivers by rainwater and can seriously affect the fish, birds and plants of the river.</li> <li>- They can also leach through the ground and into rivers.</li> <li>- Fertilisers in water can cause rapid algae growth. This, then, can lead to the water being starved of oxygen so that there is not enough oxygen for other plants, and especially for fish.</li> </ul> <p><b>Soil Erosion:</b></p> <ul style="list-style-type: none"> <li>- The removal of hedgerows and the change from pasture to arable farming has led to many cases of increased soil erosion.</li> <li>- The hedges and rubble walls protected the soil from wind erosion, and their removal</li> </ul>

			<p>created huge fields across which the wind could blow strongly.</p> <ul style="list-style-type: none"> <li>- Arable crops do not bind the soil together as well as grass and so more soil was eroded by rainwater run-off.</li> <li>- Also the crops did not cover the ground all year round and when the fields were ploughed they were even more susceptible to rapid erosion and flooding.</li> <li>- The soil is exposed and vulnerable to erosion as a result of overgrazing when too many animals are allowed to graze in a restricted area.</li> <li>- Trees, which protect from wind and rain, are removed to be used as fuel.</li> <li>- Up and down ploughing makes it easier for the rains to carry the soil away.</li> <li>- Monoculture can also lead to the loss of nutrients and so the soil can eventually be abandoned when it gives poor yields. This will then result in soil erosion.</li> </ul>
<b>9</b>	<b>10</b>		
a	8	<p>2 marks each for any two advantages</p> <p>2 marks each for any two disadvantages</p>	<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>• The dam will protect a lot of people from the floods of the Yangtze River.</li> <li>• The dam will also protect the farmland from the floods of the Yangtze River.</li> <li>• The dam will produce a lot of clean energy.</li> <li>• A lot of cargo can be transported via the Three Gorges Dam.</li> <li>• Higher water levels mean that larger vessels can be used to travel faster and can now reach the upper parts of the Yangtze River.</li> </ul> <p><b>Disadvantages</b></p> <ul style="list-style-type: none"> <li>• A big area of land had to be flooded.</li> <li>• Many people lost their homes as more than a thousand towns and villages were flooded.</li> <li>• Architectural and cultural sites were lost due to this project.</li> <li>• The natural ecosystems will be disturbed as the dam will reduce the flow of nutrients and sediment downstream.</li> <li>• Coastal erosion can harm fishing grounds and tidal wetlands.</li> </ul>
b	2	2 marks	<b>Agree/Disagree</b> – Both are acceptable as long as a good reason is given.
<b>Total</b>	<b>90</b>		