## Cambridge International Examinations

Cambridge International General Certificate of Secondary Education

GEOGRAPHY
0460/21
Paper 2
May/June 2017
MARK SCHEME
Maximum Mark: 60

## Published

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

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Cambridge is publishing the mark schemes for the May/June 2017 series for most Cambridge IGCSE ${ }^{\circledR}$, Cambridge International A and AS Level and Cambridge Pre-U components, and some Cambridge O Level components.

| Question | Answer | Marks |
| :---: | :---: | :---: |
| 1(a)(i) | Railway | 1 |
| 1(a)(ii) | power line | 1 |
| 1(a)(iii) | sports ground | 1 |
| 1(a)(iv) | Vosso | 1 |
| 1(b) | near lake / on lakeside, on river, gentle(r) slope / flat, low(er) ground / valley, road junction / route centre, valley confluence, river confluence, railway junction, | 4 |
| 1(c) | Hill / mountain / high, 654쓰, <br> steep slopes, <br> convex / gentle(r) upper slopes, <br> deep valley, <br> small valleys, <br> steeper in N/W / gentler in S/E, | 4 |
| 1(d)(i) | Forest | 1 |
| 1(d)(ii) | Cultivation | 1 |
| 1(d)(iii) | private road | 1 |
| 1(e)(i) | 3050m | 1 |
| 1(e)(ii) | along valley side / along side of a slope, <br> gentle gradient / keeps as level as possible / (about) $300 \underline{m}$, <br> avoids steep slope (lower in valley), <br> descends to X , <br> hairpins (etc.), <br> goes NW / NNW, <br> through cultivation and forest, <br> past houses and farms, <br> road junction(s) (not X), <br> crosses stream(s) / river(s), | 4 |

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| Question | Answer | Marks |
| :---: | :--- | ---: |
| 2(a)(i) | 6 | $\mathbf{1}$ |
| 2(a)(ii) | inverse relationship, <br> higher order = lower number / lower order = higher number, <br> positive relationship <br> higher order = larger distance apart / lower order = smaller distance apart, <br> For high and low order allow two named settlement types for each. | $\mathbf{2}$ |
| 2(b) | circle to include at least two neighbouring hamlets / villages but no towns, | $\mathbf{1}$ |
| 2(c) | road junction / focus / route centre, <br> accessible, <br> no other towns in the area, <br> large sphere of influence, | $\mathbf{2}$ |
| 2(d) | 2 <br> 4 <br> 5 <br> 1 <br> 3 | All 5 correct = 2 <br> $3 / 4$ correct = 1 |


| Question | Answer | Marks |
| :---: | :--- | ---: |
| 3(a)(i) | two converging arrows | $\mathbf{1}$ |
| 3(a)(ii) | X | $\mathbf{1}$ |
| 3(a)(iii) | on islands, <br> to west of plate boundary, <br> in a line / on north-south line, <br> near / in South China Sea, <br> on subduction zone, | $\mathbf{2}$ |
| 3(b) | roads destroyed / damaged, <br> settlements / villages cut off, <br> settlements / villages need to use boats for transport, <br> settlements / villages destroyed / damaged, <br> people evacuated, <br> not all settlements / villages at risk, | $\mathbf{2}$ |
| 3(c) | ash - burial / suffocation / collapse of buildings, <br> volcanic bombs / large rocks - killed by force, <br> pyroclastic flows - burning / killed by force / burial, <br> lateral blast - killed by force, <br> gases - poisoned / suffocated, <br> post-eruption famine, | $\mathbf{2}$ |


| Question | Answer | Marks |
| :---: | :--- | ---: |
| 4(a) | Shrubs / bushes / scrub, <br> (one) larger bush / small tree, <br> No / few leaves, <br> red leaves / red flowers, <br> small leaves, <br> bulbous / wide / thick trunk, <br> thorns / spikes, <br> flowers / yellow leaves, | $\mathbf{4}$ |
| 4(b) | Hot / very hot / high / very high, <br> $13^{\circ} \mathrm{C}$, <br> $23^{\circ} \mathrm{C}$ (error carried forward), <br> Low / very low, | $\mathbf{4}$ |


| Question | Answer | Marks |
| :---: | :--- | ---: |
| 5(a)(i) | safe from illness / death, <br> cholera / diarrhoea / typhoid, <br> children / old more susceptible, <br> more able to work / develop the economy, <br> less money spent on health care, <br> Allow converse of points where relevant. | $\mathbf{2}$ |
| 5(b)(i) | PNG | $\mathbf{1}$ |
| 5(b)(ii) | rural less / urban more, <br> Australia / MEDC no difference / both 100\%, <br> PNG big difference, | $\mathbf{2}$ |
| 5(c)(i) | larger sector 74-77 |  |
| 5(c)(ii) and key correct | agriculture the main use, <br> PNG an anomaly (for agriculture / industry),, <br> industry the least use, <br> Indonesia an anomaly (for industry), | $\mathbf{1}$ |


| Question | Answer | Marks |
| :---: | :--- | ---: |
| 6(a)(i) | large scale arable | $\mathbf{1}$ |
| 6(a)(ii) | contour ploughing, <br> water trapped in furrows, <br> increased infiltration, <br> less surface runoff, <br> (planting) trees / shelter belts, <br> blocks wind / reduces wind speed, <br> wind cannot pick up soil, <br> roots bind soil, <br> 2 marks for each method. | $\mathbf{4}$ |
| 6(b)(i) | produce more / increase profits / increase income, | $\mathbf{1}$ |
| 6(b)(ii) | sell less / reduced profits / lose money, <br> unable to compete with EU producers / more European sugar beet bought, | $\mathbf{1}$ |
| 6(b)(iii) | reduced price of sugar / cheaper sugar, | $\mathbf{1}$ |

