## MARK SCHEME for the October/November 2007 question paper

## 0460 GEOGRAPHY

0460/04
Paper 4 (Alternative to Coursework), maximum raw mark 60

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.

All Examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes must be read in conjunction with the question papers and the report on the examination.

- CIE will not enter into discussions or correspondence in connection with these mark schemes.

CIE is publishing the mark schemes for the October/November 2007 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.

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| 1 | (a) |  | Increase; deeper; both correct for one mark | 1@1mark | [1] | Tick by "deeper". Need |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (b) | (i) | Diagram to show a ranging pole on each bank and a measuring tape stretched between the poles | 3@1 mark | [3] | Max 1 mark if no labels <br> Two poles/one label (1) Labelled meas. tape (1) Poles on banks (1). (Can be aerial/sketch) |
|  |  | (ii) | Correct plotting of $0.15,0.1$ depth and width of 1.4 m | 3@1 mark | [3] | No line $=\max 2$ marks <br> For $3^{\text {rd }}$ mark do not allow if on 1.3 or 1.5. |
|  | (c) | (i) | Correct measurement of wetted perimeter: 6.5-6.7 inclusive range for 2 marks. <br> Accept 6.3m-6.9m inclusive for 1 mark. | 2@1 mark | [2] | Can give figure by question if not in box. No need to state metres. |
|  |  | (ii) | Ref. to increased friction (1) slows down the flow/speed of the water (1) | 2@1 mark | [2] | Accept reverse answer if covers change. |
|  | (d) | (i) | Name/group; date; weather; time - accept aspects of time e.g. exact time/am/pm/start time or finish time. | 2@1 mark | [2] | "Conditions" too vague; no marks for ref. to what is being measured or equipment used. |
|  |  | (ii) | Gain average reading/improve reliability/fairer/more representative. Accept obstructions/water speed varies as reason for repeating. | 1@1mark | [1] | "Accurate" needs qualification. |
|  |  | (iii) | $0.32 \mathrm{~m}^{2}$ | 1@1mark | [1] |  |
|  | (e) |  | The width of the stream becomes wider/increases (1); 1.4 m at site A and 6.42 m at site C (1) OR overall change 5 m (1); <br> The stream becomes deeper/increases (1); max depth 0.15 at A and 0.5 m at $\mathrm{C}(1)$ OR overall change 0.35 m (1) <br> The discharge increases (1); $0.01 \mathrm{~m}^{3} / \mathrm{sec}$ at A to $1.25 \mathrm{~m}^{3} / \mathrm{sec}$ at site C (1) OR overall change $1.24 \mathrm{~m} / \mathrm{sec}$ (1) | 6@1mark | [6] | $3 \times(1+1)$ <br> 1 mark for each change <br> 1 mark for back-up data; data must refer to $A$ and C. No credit for refs. to B. Tick D for data. <br> No need to state "metres". |


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| (f) |  | Discharge: Increase in discharge/more water carried (1) <br> Processes: Reduction in friction; increase erosion; increased transportation/load; reduced deposition here - increased deposition elsewhere/downstream. $(1+1)$ | $\begin{aligned} & \text { 3@1mark } \\ & (1 \mathrm{D}+2 \mathrm{P}) \end{aligned}$ | [3] | Max. discharge mark (1) 1P for Erosion OR type (not corrosion/solution) <br> 1P for Transport <br> 1P for Deposition. <br> Any 2 from 3 Process marks. (1+1) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| (g) | (i) | Ideas such as: <br> repeat investigation again; <br> repeat during different season/month/year; <br> investigate land use/pebble load <br> Reason - more reliable/representative/fairer test. <br> Ideas must be linked to stream study Max 2 if no reasons. <br> Specific equipment OK (not better technology); why it would <br> improve the experiment <br> Pilot study OK then reason needed for improvement. | 4@1mark | [4] | $2 \times(1+1)$ <br> 1 for Improvement +1 Reason (tick R) Refs to "accuracy" need qual. |
|  | (ii) | Hypothesis correct/true/valid/supported (1) Elaboration: width and depth increase from site $A$ to site C/source/downstream (1) | 2@1mark | [2] | "Yes" alone too generous re H; must refer to A-C or source or downstream for $2^{\text {nd }}$ mark. |
| [Total 30 marks] |  |  |  |  |  |


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| 2 | (a) |  | Reasons such as: more money/affluence; more available travel/air routes/cruises; cheaper air travel; travel programmes/knowledge of destinations; better choice of accommodation; more exotic destinations; longer holidays; shorter working hours; package holidays; increased life expectancy/early retirement; more attractions/theme parks etc.; better transport. | 3@1mark | [3] |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (b) | (i) | To find out if the person was a migrant. | 1@1mark | [1] |  |
|  |  | (ii) | Advantage easily available/accessible to the students; reliable; Disadvantage selective/biased sample; limited range of answers; illiterate/dyslexic/can't read; privacy issues. | $\begin{aligned} & \text { 2@1mark } \\ & (1 \mathrm{~A}+1 \mathrm{D}) \end{aligned}$ | [2] | Tick A tick D |
|  | (c) | (i) | Appropriate title for graph - should refer to 2 aspects of graph e.g. numbers/length of residency/where born. Correct black shading of those bars i.e. use of key; correct plotting of 19, 33 and 11; | 4@1mark | [4] | Title (1); none if any ref. to age-group. Using shading in key (1) <br> Plotting 2 correct $=(1) ; 3$ correct $=(2)$ |
|  |  | (ii) | Comments of description such as: $69 \% /$ about $2 / 3 / 3 / 4$ born locally but $1 / 3 / 1 / 4$ migrated OR most born locally (1 max.); <br> local people had all been there over 20 years; most common length was 40-49 years; most of the migrants had moved in the last 20 years; no-one questioned migrated longer ago than 39 years. | 3@1mark | [3] | NOTE: beware of refs. to age-groups rather than length of residency in answers! |
|  | (d) | (i) | Correct plotting of lines with width of 3 mm for India and 1 mm for Thailand. | 2@1mark | [2] | No marks for shading. India: not 2 or 4 mm . Thailand not 0.5 or 1.5 mm . |
|  |  | (ii) | Shorter travelling distance; more information about a local country; similar culture; shorter distance to travel back to relatives; better/warm weather; affordable; can use same currency; cheaper travel; closer OR faster; easy travel within EU. | 3@1mark | [3] | Refs. to retirement. No marks for any refs. to work. |


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|  | (iii) | Hypothesis: Yes the hypothesis is correct/supported (1) Allow partly correct or incorrect if support with data or information. Reason: the majority of the migrants came from Europe; Data: 19/31 people or approx. 60\% from Europe; could include Tunisia (closer to Spain) so 23/31 OK. Accept if say 19 Europe and ref to 12 from elsewhere. <br> Improvements: ask more people; ask people other than parents; increase the questions asked; | 5@1mark | [5] | Hypothesis correct (1H). Read reas before marking "partly" or "incorrect" also H . <br> Qualitative reasons ( $2 \times 1 \mathrm{R}$ max) <br> Data (1D) <br> Improvements ( $2 \times 11$ max) |
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| (e) | (i) | Secondary data is information which the students did not collect; e.g. maps; census; books; | 1 mark for definition 1 mark for 2 correct examples | [2] | Take first two if more than two. Need 2 examples for 1 mark. |
|  | (ii) | Underlined words of: restaurants/bars/hotels; employment; airport; roads improved; warm climate; local culture. | 2@1mark | [2] | First two count whatever is underlined. |
|  | (iii) | Question: Why did you move to the town? Or other appropriate question. <br> Choices: e.g. jobs; airport; climate; culture; other. Layout as questionnaire and boxes to tick. | 3@1mark Question, Choice and Boxes/layout | [3] | Question (1Q) <br> Choices (min. 3 relevant including "other") <br> Layout: boxes on RHS as on original questionnaire. <br> No layout mark if no Q/C mark. |
| [Total 30 marks] |  |  |  |  |  |

