CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the June 2002 question papers

0460 GEOGRAPHY

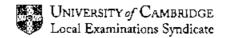|	
0460/1	Paper 1 (Core), maximum raw mark 75
0460/2	Paper 2 (Extended), maximum mark 75
0460/3	Paper 3, maximum mark 60
0460/5	Paper 5 (Alternative to Coursework), maximum mark 60

These mark schemes are published as an aid to teachers and students, to indicate the requirements of the examination. They show the basis on which Examiners were initially instructed to award marks. They do not indicate the details of the discussions that took place at an Examiners' meeting before marking began. Any substantial changes to the mark scheme that arose from these discussions will be recorded in the published *Report on the Examination*.

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 June 2002 question papers for most IGCSE and GCE Advanced Level syllabuses.

GEOGRAPHY (0460)

PAPER 1

1 (a) (i) <u>1 mark each</u> [2]

(ii) the higher the population density the higher the proportion of small farms. [1]

(iii) <u>population</u>
area   or statement population divided by area. [2]

(b) (i) when the population of an area cannot be supported by its resources.
people decide to move themselves,
<u>2 at 1 mark</u> [2]

(ii) high population densities in parts,
overcultivation,
65% population live on 7% land area,
rural population - insufficient food.
<u>2 at 1 mark</u> [2]

(iii) high population density / Over 90% of population of Indonesia live in Java & Bali,
outer islands less populated,
low population density.   <u>2 at 1 mark</u> [2]

(c) high birth rate with reasons,   <u>max 2 marks</u>
death rate declining   <u>max 1 mark</u>
rural -urban migration,
push factors -
small unproductive farms,
increased debts / moneylenders,
decreasing fertility,
lack of employment,
natural disasters,
limited educational
health facilities,
few social facilities,
pull factors -
wide range of jobs,
regular wages,
better medical facilities,
schools / colleges,
entertainment & leisure,
<u>6 at 1 mark</u> [6]

(d) (i) overpopulation / overcrowding,
insufficient housing,
squatter settlements,
transport congestion,
unemployment,
lack of health facilities / hospitals,

water supply problems / other services e.g. electricity,
lack of sanitation,
shortage of schools / educational facilities,
pollution.
social problems,   max 1 mark
                                                   5 at 1 mark   [5]

(ii)   cost,
         numbers involved,
         difficulties of providing - housing, schools, hospitals, work etc.
                                                   max 2 marks
         policing difficulties,
         problems of enforcing pollution control etc.
                                                   3 at 1 mark   [3]

2   (a) (i)   around the CBD.   [1]

         (ii)   A NE / N,
                 B S / SE of river / CBD,
                 outskirts / periphery   max 1 mark forA&Btogether
                                                   2 at 1 mark   [2]

         (iii)   place where people live out of town but work in the town.   [1]

         (iv)   A communications,
                 ? along roads,
                 outskirts-
                 ? cheaper land,
                 away from original settlement,
                 but close to housing areas - labour,
                 ? flat land.
                                                   3 at 1 mark   [3]
                 B new residential areas,
                 well away from town centre,
                 large residential area - customers.
                                                   2 at 1 mark   [2]

    (b)   (i)   benefits -
                 work in the city,
                 higher order shops,
                 services in the city - theatres etc.,
                 easy route to work,
                 quick.
                                                   4 at 1 mark   [4]

         (ii)   rapid growth,
                 residential areas,
                 road links,

new services develop in the town to serve the people,
industry attracted here -
? cheaper land than London,
may cause some services to decline in the town - competition.

<u>4 at 1 mark</u> [4]

(c) **(i)** main shopping centre,
main concentration of offices,
route focus,
high land values,
3D character / tall buildings,
large number of commuters,
large variety of shops -
higher order outlets,
low residential population,
groupings of goods & service outlets,
specialised shops.
traffic congestion,
especially rush hours,
shortage of building land,
high cost of building land,
pollution,
shortage of open spaces / green areas,
few residents -
'dead heart' at night.

<u>4 at 1 mark</u> [4]

(ii) **e.g. of problem - traffic congestion.**
named problem - <u>1 mark</u>
other problems - 'dead heart' - lack of activities after workers left,
low residential population,
need for urban renewal,
need for extra space,
pollution,
need to preserve old / historical buildings,
lack of open spaces.
attempts to deal with problem - e.g. traffic congestion
build new roads,
widen roads,
restrict access for traffic,
higher costs of parking,
persuade workers to work staggered shifts,
improved public transport,
decentralisation of commercial functions,
encourage more people to live in CBD - building of homes.

<u>3 at 1 mark</u> [4]

3 **(a)** **(i)** 0.7 mm - 1mm,
sand. <u>2 at 1 mark</u> [2]

(ii) A the faster the speed the larger the particles that can be moved.
B the faster the speed the type of particle changes from silt
to stones. <u>2 at 1 mark</u> [2]

(iii) traction,
saltation,
suspension,
solution,
allow description e.g. rolling for traction, bouncing for saltation.
<u>3 at 1 mark</u> [3]

(b) **(i)** 4 features <u>4 at 1 mark</u> [4]

(ii) steep sides,
steep backwall,
hollow floor / arm,chair shaped,
scree,
? lake. <u>3 at 1 mark</u> [3]

(iii) softer rock,
ice flowing more quickly as it passes over hard rock / steep
slope,
extra ice from tributary valley glacier,
more erosion -
hollows floor,
abrasion,
plucking,
deposition of moraine,
water trapped behind terminal moraine.
<u>3 at 1 mark</u> [3]

(iv) freeze-thaw / frost action,
rain collects in cracks / joints,
temperature falls at night,
water freezes - expands,
stress on cracks / joints,
joints opened,
melting - day - more water enters the joints,
repetition.
<u>4 at 1 mark</u> [4]

(v) ridge / mound,
crosses valley / lowland area,
steep sided. <u>1 mark</u>
mixed deposit - large stones - fine clay.
<u>1 mark</u> [2]

(vi) material carried by valley glacier,
deposited when ice melted.

<u>2 at 1 mark</u>   [2]

4   **(a)** **(i)**   **W** maximum-minimum thermometer,
X wet-dry bulb thermometer / hygrometer,
Y barometer.

<u>3 at 1 mark</u>   [3]

(ii)   **A** 6° C (2 - 8° C),
B 1010 mb - 1012 mb,
C 14mm.

<u>3 at 1 mark</u>   [3]

(iii)   dry bulb temperature,)
wet bulb temperature,)   <u>1 mark</u>
difference,   <u>1 mark</u>
use humidity tables,)
read the %age.   )   <u>1 mark</u>
                                       <u>any2 at 1 mark</u>   [2]

(b) **(i)**   funnel,
container,
jar / flask,
measuring cylinder,
funnel rim 30cm above ground.

<u>3 at 1 mark</u>   [3]

(ii)   water collects in glass jar,
emptied into tapered glass measure / measuring cylinder,
scale on cylinder in mm,
tapered end allows small amounts of rain to be measured,
read once every 24hrs.,

<u>2 at 1 mark</u>   [2]

(iii)   **S**
open location / on grass / away from sheltered position.
P, Q too close to building.
R sheltered by trees / not open position.

<u>4 at 1 mark</u>   [4]

(c) **(i)**   hot / warm summer,
mild / warm / cool winter,
moderate mean annual temperature,
large annual range 18° C,
dry summer,
wet winter.

<u>3 at 1 mark</u>   [3]

(ii) different insolation rates throughout year,
lower angle of sun's rays - winter,
higher position of sun - summer,
sea influence in raising winter temperature,
dry trade winds / offshore winds in summer,
onshore / westerly winds in winter,
relief & cyclonic rainfall in winter.

<u>2 at 1 mark</u>   [2]

(d) evergreen woodland,
large trees - cedar, pine evergreen oak,
low evergreen shrubs / maquis,
leathery leaves / waxy leaves,
spiny leaves / hairy leaves,
thick bark,
long roots obtain supplies of underground water,
bulbous roots store food & moisture.

<u>3 at 1 mark</u>   [3]

5 (a) inputs - factors   ) accept examples of each
ouputs - products.)

<u>2 at 1 mark</u>   [2]

(b) (i) centre   [1]

(ii) assembles / puts together components   [2]

(iii) 3 components each at   <u>1 mark</u>   [3]

(iv) save on transport costs   [2]

(v) large factory - assembly line,
large land - storage,
parking of workers cars,
parking of finished cars.

<u>3 at 1 mark</u>   [3]

(vi) bringing large number of components to the factory,
movement of finished products to markets,
transport of workers.

<u>2 at 1 mark</u>   [2]

(vii) many processes / assembly line,
large output,
for labour   <u>1 mark</u>
to pay for factory,
machinery,
components.
for capital   <u>1 mark</u>
                          <u>2 at 1 mark</u>   [2]

(c) **(i)** smoke / gases,
solid waste materials - examples,
liquid waste.
                          <u>2 at 1 mark</u>   [2]

(ii) air pollution - affects quality of air people breathe,
take up land,
affect river quality,
health problems,   )
CO_2 - acid rain,   )   max for each <u>2 marks</u>
global warming.   )
                          <u>4 at 1 mark</u>   [4]

(iii) improvements in industrial processes - less waste,
treatment,
filtration,
cleaning,
burial of waste,
legislation.
                          <u>2 at 1 mark</u>   [2]

6 **(a)** **(i)** providing for the farmer and family,
little or no surplus for sale.
                          <u>2 at 1 mark</u>   [2]

(ii) bush fallowing / shifting cultivation,
clearance of forest,
burning,
planting - holes - digging stick,
weeding,
harvesting.
                          <u>4 at 1 mark</u>   [4]

(iii) food crops -
root crops,
bananas,
sugar,
vegetables,
coconuts.   <u>2 at 1 mark</u>
other output - cattle products.   <u>1 mark</u>   [3]

(iv)   soil fertility declines,
        allow natural vegetation to grow,
        soil is replenished.   2 at 1 mark   [2]

(b) (i)   loss of nuts,
            coconuts,
            fruit,
            loss of land - gardens,
            no trees to burn - ash - fertilisers,
            no protection for soil,
            loss of material for tools for farming.
                                          3 at 1 mark   [3]

     (ii)   loss of water supply,
            rivers become silted / unclean,
            loss of transport,
            loss of fish.
                                          2 at 1 mark   [2]

(c) (i)   area   [1]

     (ii)   factors   3 at 1 mark   [3]

     (iii) processes   3 at 1 mark   [3]

     n.b.   if system / location not specified in (i) -
            for each of (ii) & (iii)   max 1 + 1 mark

     (iv)   outputs   2 at 1 mark   [2]