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Mark Scheme (Results)

Summer 2014

Pearson Edexcel GCE in Geography (6GE01)
Unit 1: Global Challenges

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General Guidance on Marking

All candidates must receive the same treatment.

Examiners should look for qualities to reward rather than faults to penalise. This does NOT mean giving credit for incorrect or inadequate answers, but it does mean allowing candidates to be rewarded for answers showing correct application of principles and knowledge.

Examiners should therefore read carefully and consider every response: even if it is not what is expected it may be worthy of credit.

Candidates must make their meaning clear to the examiner to gain the mark. Make sure that the answer makes sense. Do not give credit for correct words/phrases which are put together in a meaningless manner. Answers must be in the correct context.

Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the Team Leader must be consulted.

Using the mark scheme

The mark scheme gives:
- an idea of the types of response expected
- how individual marks are to be awarded
- the total mark for each question
- examples of responses that should NOT receive credit.

1 / means that the responses are alternatives and either answer should receive full credit.
2 ( ) means that a phrase/word is not essential for the award of the mark, but helps the examiner to get the sense of the expected answer.
3 [ ] words inside square brackets are instructions or guidance for examiners.
4 Phrases/words in **bold** indicate that the meaning of the phrase or the actual word is **essential** to the answer.
5 ecf/TE/cq (error carried forward) means that a wrong answer given in an earlier part of a question is used correctly in answer to a later part of the same question.

Quality of Written Communication

Questions which involve the writing of continuous prose will expect candidates to:

- show clarity of expression
- construct and present coherent arguments
- demonstrate an effective use of grammar, punctuation and spelling.

Full marks will be awarded if the candidate has demonstrated the above abilities.

Questions where QWC is likely to be particularly important are indicated "QWC" in the mark scheme BUT this does not preclude others.

Question Number	Answer	Mark
1 (a)(i)	Destructive / convergent / subduction zone	**(1)**

Question Number	*Answer*	Mark
1 (a)(ii)	*Note: There are 2 destructive/convergent boundaries in the Philippines. One to the east, a "classic" subduction zone, which maybe more familiar. And one to the west, shown in Figure 1.* • No mark for saying it is a destructive plate (in 1ai) • No mark for naming plates (on the resource) • Subduction is occurring ❶ may explain the denser plate is subducted beneath the other❶ • Melting of the plate❶ generates rising magma❶ • Viscous magma and explosive ❶ • May name an example with a detail❶ eg Pinatubo 1991 or VEI scale 6 • Convection currents (may mention in asthenosphere) drive convergence❶ • Credit diagrams showing convection currents correctly linked to subduction❶ • May have other process explanation❶	**(3)**

Question Number	Answer	Mark
1 (b)	B - 847 people killed when Mount Pinatubo erupted in1991 E - 268 people killed by an earthquake in Manila in 1968	**(2)**

Question Number	*Answer*	Mark
1 (c)	NB - this is a compulsory case study so expect detailed knowledge. • Philippines is located in cyclone belt approx.5-25^0 N ❶ and makes some link with rotation / Coriolis Force ❶ affected by storms as they blow west in Pacific Ocean❶ • Sea temperatures around 26^{0}C ❶, allowing warm, moist body of air to develop due to intense evaporation❶ • Comments explicitly on frequency / number/scale of tropical storms (measured on Saffir-Simpson scale / around 10-20 per year) ❶ • Philippines has low lying areas (e.g. Manila) ❶ which are prone to flooding/storm surges❶ • Floods can be a secondary hazard following on from cyclones ❶ and may provide details e.g. low pressure drives storm surges / higher sea levels ❶ • Sea level rise (eustatic change) due to high Sea Surface Temperatures/ land ice melt results in more extreme flooding ❶ • Floods have other causes, including monsoon rains, La Nina and occasional tsunamis (❶ for list or ❶ per outlined cause and ❶ for extended explanation) • Credit role of deforestation ❶ and role of urbanisation❶ • Low income country so limited flood defences❶ • Credit other valid explanations ❶ • Philippines detail: e.g. Typhoon Haiyan (Nov 2013)/ ❶ caused widespread flooding particularly affecting island of Leyte/ city of Tacloban ❶ Award ❶ mark for each explanation and a further ❶ mark for a valid extension or example. No mark for El Nino comments about rainfall. For full marks must cover both hazards (need not be balanced).	**(5)**

Question Number	Answer	Mark
2(a)(i)	Sheerness	**1** **(1)**

Question Number	Answer	Mark
2(a)(ii)	o Thermal expansion of ocean water ❶ as molecules move more vigorously/have more kinetic energy ❶ May have additional details like 0.74°C rise in temperatures in twentieth century ❶ o Melting of land ice adds volume ❶ from e.g. glaciers, Greenland /Antarctica ❶ Changes albedo (less ice so less reflective surfaces) leading to positive feedback as more water reaches ocean.❶ o Melting permafrost/ ocean hydrates release CO_2/methane ❶ leads to enhanced greenhouse effect so higher temperatures so more land ice melts/ more thermal expansion ❶ The enhanced greenhouse effect (results in warmer air and/or sea temperatures) may be mentioned but MUST be linked to either melting or thermal expansion (but only credit this once).❶ Must be 2+2 Accept and credit use of alternative specialist vocabulary. Accept “ice caps”. Do not accept sea ice.	**2** **2** **(4)**

Question Number	Answer	Mark
2 (a) (iii)	*Note: Do not credit flat /low lying land (in Q). Do not credit human reasons e.g. lack of manmade defences.* Point mark any of the following reasons why sea-level rise / coastal flooding / inundation becomes more extreme on a local scale: • Sea-level driven higher by low-pressure storms / depressions / cyclones / storm surges ❶ in typhoon path e.g. Philippines ❶ • Land is below sea level ❶ e.g. coral islands like Tuvalu ❶ • Sea water comes up through (porous) coral islands❶ • Increased sea temperatures (may link to global warming)so thermal expansion ❶ due to sun spot activity (or other natural cause) ❶ • Isostatic tilting / sinking ❶, e.g. SE England • Land / crust sinking ❶ • Local subsidence ❶ due to settling of sediments / deltas ❶ (e.g. London, Venice, Bangladesh) • Geology such as clay ❶ means water cannot percolate through ❶ • Credit lack of natural defences (mangroves) ❶ • May use examples with a detail e.g. a specific low-lying environment, such as a delta ❶ • Credit alternate valid explanations Must be one reason with an extension / example. Not two separate reasons.	**(2)**

Question Number	Answer	Mark
2(b)	• Many African countries/populations are reliant on agriculture so coastal flooding causes loss of land /reduced yields/ income ❶ • May develop or exemplify this e.g. lost fertile alluvial land ❶ e.g. Nile or Ganges delta ❶ • Increased costs of drinking water (salt water incursion)❶ • Economic impacts on coastal cities e.g. Lagos or Mumbai ❶ and may provide details e.g. loss of informal housing, markets ❶ hotels, tourist amenities e.g. Maldives ❶ • Infrastructure losses e.g. coastal roads, port, railways, airport ❶ • Credit increased cost of medical care if more coastal disasters /storm surges❶ • Existing sea defences need reinforcing❶ • Losses for the poor who cannot afford sea defences❶ • Considers impact on national GDP/government spending on other sectors like health ❶ or loss of assets for TNCs / reduced FDI ❶ • Reclaimed land particularly at risk❶ loss of investment e.g. Eko-Atlantic site at Lagos❶ • Possibility of positive impacts but depends on context • Award ❶ mark for each impact and a further ❶ mark for a valid extension or example. There are large numbers of other relevant e.g. Credit other valid **economic** suggestions. Max 3 for general economic impacts. Allow non-African examples but must be related to developing country issues.	**(4)**

Question Number	Answer	Mark
3 (a)(i)	It is a measure of <u>carbon dioxide</u> / greenhouse gas emissions (includes methane, nitrous oxides) / carbon dioxide emissions that a person is responsible for (need not specify timescale). Do not accept carbon on its own Allow "amount of CO_2 a person emits" Don't allow: "How much emissions a person produces" "How much carbon is emitted" "Total carbon a person uses"	**(1)**

Question Number	Answer	Mark
3(a)(ii)	*The variations in Figure 3 need to be identified (e.g.high in Highlands) but the marks are for <u>reasons.</u>* • Explains high footprints for rural areas like Highlands e.g. reliance on cars ❶ as public transport is expensive/unavailable❶ • May be extended by explaining specific activities (e.g. affects food miles/travel to education/employment) ❶ • Urban areas likely to have more extensive public transport system❶ • Some local councils encouraging recycling / re-use schemes ❶ cheaper to provide in urban area than in dispersed rural settlements❶ • Compact city living idea for Glasgow / Edinburgh (walking/cycling easier)❶ • Urban heat island effect/insulation in terraced housing❶ • Physical factors: Exposed coasts/high relief may increase heating requirements❶ • Credit other valid suggestions such as variation between people with different incomes/education/ethical outlook ❶ • Award ❶ mark for each impact and a further ❶ mark for a valid extension or example. *Don't double credit mirror points (e.g. cars used in rural areas but reduced levels of cars in cities is one mark not two)* *Do not credit description of pattern of carbon footprints.* *Do not credit higher/lower populations as footprints are per person*	**(4)**

Question Number	Answer	Mark
3(b)	Using nuclear power instead of coal	**(1)**

Question Number	Answer	Mark
3(c)	Climate change mitigation (reduces emissions) • New forests increase uptake/absorption of CO_2 ❶ and uses carbon sink idea ❶ • Has details of re-afforestation / offsetting schemes ❶ • Using fuel wood reduces fossil fuel consumption ❶ • Reduces impact of enhanced greenhouse effect ❶ Climate change adaptation (living with consequences) • Explains that increasing forest cover could help reduce effects of flooding / hurricanes ❶ and gives details e.g. interception store / transpiration❶ or mangroves as coastal defence from rising sea levels or storm surges❶ In both cases, credit valid points not covered by mark scheme. No transfer allowed – 2+2	**2** **2** **(4)**

Question Number	Answer	Mark
4 (a)(i)	India	**(1)**

Question Number	Answer	Mark
4(a)(ii)	*Question is about distribution of remittance flows, not why people migrate/send money home.* *A flow needs to be identified (e.g. from USA to Mexico) then a reason given.* Remittances are moving between: Wealthy countries with job opportunities/higher pay to developing/ lower-income countries❶ Ex-colonial mother-countries like UK to former colonies❶ Adjacent countries ❶ (e.g. Hong Kong to China) Countries with existing enclaves❶ Countries in a trade bloc❶ (e.g. NAFTA: USA to Mexico) Another approach could consider areas that are <u>not</u> part of these top ten flows. Or to explain why these flows are the largest globally. No marks for stating data taken from map e.g. £4.1bn Britain to India Point mark each suggested reason ❶ and any extension❶.	**(3)**

Question Number	Answer	Mark
4(b)(i)	*Only physical answers are acceptable* *Must be two separate reasons so no extension marks* • Specific **<u>high value</u>** natural resources e.g. oil, gas ❶ • Coastline for trade/access❶ • Location e.g. near market ❶ • Flat land suitable for factories/transport/airport❶ • Physical barriers which hinder being 'switched-on' e.g. availability of reliable water supply ❶ landlocked❶ • Numerous other possibilities Do not accept "better temperature" or similar	**(2)**

Question Number	Answer	Mark
4(b)(ii)	There are many different approaches to this question. Emphasis should be on <u>information</u> (such as data/ photos/ ideas/ news/ knowledge/ film/ music) and <u>global networks</u> (such as internet/ TNCs/ business/ trade / air travel /container ships/ social e.g. Facebook) that share or use it. Allow answers that discuss how information flows create networks, and also how networks enable flows of information. Very few specify the information that is being shared. • Internet enables personal information flows (photos, news) ❶ and can create social networks (Facebook/Twitter) ❶ May link to migrants staying in touch with family ❶ online shopping ❶ • TNCs use economic "information" (e.g. data/finance/supplies /demand)❶ to trade/ build global businesses ❶ via outsourcing ❶ division of labour ❶ using for example video-conferencing /skype❶ • Information about holidays / online booking helps increase tourism ☐ e.g. airlines / travel companies ☐, multiplier effects for restaurants / theatres ☐ tourism to remote locations☐ or nearby locations, e.g. London ☐ • Global exchange of knowledge builds 'learning communities' or 'special interest groups'☐ e.g. music / film / media/ gaming communities/ religious groups☐ • Award ❶ for a list e.g. email/internet/fibre optics Credit other valid interpretations and examples of these networks/ flows "Global" does not need to be addressed specifically. Examples could be flows of information, or networks, or companies/groups who use them. Point mark each explained network with extension points awarded for details.	**(4)**

<table>
<tr><th>Question Number</th><th>Answer</th><th>Mark</th></tr>
<tr><td>5(a)</td><td>Award 0 if none or one letter correct
Award 1 mark if two letters are correct
Award 2 marks if all four letters are correct

<table><tr><td>LDCs</td><td>NICs</td></tr><tr><td>C</td><td>D</td></tr><tr><td>B</td><td>A</td></tr></table></td><td>(2)</td></tr>
</table>

<table>
<tr><th>Question Number</th><th>Answer</th><th>Mark</th></tr>
<tr><td>5(b)</td><td>No marks for naming countries

<table><tr><td></td><td>Members</td><td>Purposes</td></tr><tr><td>OEC D</td><td>• Group of high-income/rich countries or MEDCs❶ Or rich and some middle-income countries ❶
• Must be willing to agree to purposes of group❶</td><td>• Promotes policies that will improve the well-being of world's people / interests of members/ seeks solutions to global problems e.g. environment/development ❶
• May provide specific example (e.g. combating bribery) ❶
• Credit other valid suggestions of purpose e.g. data collection / report publication ❶ e.g. PISA</td></tr><tr><td>OPEC</td><td>• Group of major oil-producing nations ❶ wealthy from petrodollars❶</td><td>• Acts to influence oil prices / regulate supplies (accept view it is a cartel) ❶

(NB OPEC does not fix prices)</td></tr></table>
• Credit other valid statements of characteristics/ purpose ❶

Allow transfer of marks if members/purpose are in same/ wrong box.
Must get OECD and OPEC right way round.</td><td>1 + 1 + 1 + 1

(4)</td></tr>
</table>

Question Number	Answer	Mark
5(c)	• Free trade between member states/ trade liberalisation ❶ achieved through abolition / relaxation of import / export tariffs or duties❶ allows access to new markets ❶ • Results in cheaper prices to consumers in neighbour countries, to the benefit / profit of producers / firms ❶ as well as to customers / consumers ❶ ultimately reflected in higher GDP for member states ❶ • Encourages investment (FDI) from TNCs❶ e.g. Cadbury in Poland ❶ • Benefits of common external tariff ❶ • Details of how successful firms prosper by exploiting comparative advantages and specialising ❶ and building economies of scale ❶ • Attraction of joining Euro currency to encourage foreign investors❶ • Credit arguments which may go beyond economic/trade e.g. security / inter-dependence ❶ • Allow credit for answers commenting on migration ❶ (NB only relevant for EU), but for 5 marks **trade** must be part of the answer Point mark each suggested idea ❶ and any extension / example❶	**(5)**

Question Number	Answer	Mark
6 (a)	2010 | 1 2025 | **2**	**(1)**

Question Number	Answer	Mark
6(b)(i)	<u>Employment pull factors</u> • Greater range jobs/higher wages/ more reliable income ❶ • Formal opportunities ❶ e.g. Manufacturing jobs for TNCS❶ / in EPZs❶ Promotion opportunities ❶ Tertiary / call centre work ❶ • No limit to potential earnings compared with rural❶ • Informal opportunities❶ e.g. buying/selling/delivery ❶ • More chance to set up own business as more customers❶/ possible sources of finance ❶ • Credit other valid specific employment attractions ❶ • Credit applied use of e.g. (data/details, not just named city) ❶ or extended point ❶ *No credit for generic statements ('more jobs')* *Do not credit rural push* <u>Social push factors</u> • Lack of/poor schools ❶ Lack of secondary / higher education ❶ • Lack of/poor health or medical facilities / clinics ❶ e.g. for HIV/AIDS vaccines❶ • Small communities ❶ ageing populations / lack of marriage partners / lack of young people / lack of activities for young people ❶ Can lead to demultiplier effects/spiral of decline❶ • Restrictive customs / practices (especially for women or minority groups) ❶ • Civil war / fear of militia groups ❶ Food shortages ❶ • Credit other valid specific social push factors ❶ • Credit any applied use of example (has data/details, not just named location) ❶ or extension point ❶ *Do not credit urban pull* *Must be 3+3 (no transfer)*	**3** **3** **(6)**

Question Number	Answer	Mark
6 (b)(ii)	• Natural increase • High birth rate / high fertility rate • More births than deaths (accept alternative phrasing)	**(1)(**

Question Number	Answer	Mark
6 (c)	*Note: Q asks for a description of changes which have resulted in growth and development. Don't expect separate coverage of growth and development.* Specifics will depend on chosen example. <u>Immature / maturing / developing megacities</u> • Rural-urban growth / natural increase / in-migration ❶ Growth of shanty towns on outskirts ❶ growth in suburbs in some cities recently❶ • Also growth in central slum areas ❶ e.g. Dharavi in Mumbai ❶ • Developed through slum clearance❶ /high rise CBD ❶ e.g. Smokey Mountain in Manila now levelled❶ <u>Developed/mature megacities</u> may include • Growth/sprawl of suburban fringe ❶ names a Los Angeles suburb ❶ decline of downtown/leaves a "donut" effect❶ • Developed through brownfield / infill /regeneration ❶ e.g. Olympic Park, London ❶ or Docklands/ Shoreditch ❶ • Credit geographical growth e.g. along named river, coast ❶ or linked to transport/river crossings ❶ • Credit historical growth e.g. London grew as a port ❶ now financial centre ❶ • Credit descriptions of population growth over time❶ • Credit other valid and exemplified interpretations *Max 3 if no applied use made of example (e.g. could refer to a district, or a physical feature)* *0 if chosen city is not a megacity (check list)* *Allow London as megacity* Does not need to cover "has grown and developed" separately for 4 marks	**(4)**

Question Number	Indicative content
7 (a)	**Distribution of landslides** Distribution may be considered through physical factors such as plate boundaries, areas prone to heavy rainfall, mountainous areas, coastlines. Or through human factors like densely populated areas, deforestation or income. Another common approach is to use the photos as a structure, in which case distribution may be not be discussed explicitly.

	Physical factors	**Human factors**
Deforested slopes in Rio de Janeiro, Brazil:	Steep slopes >35° Heavy rain leads to saturation adding weight	Deforestation (trees help hold soil in place) Excavation for foundations destabilises slope
Devon coastline	Steep angle, geology Prolonged heavy rainfall (winter 2012-13 and 2013-14) Coastal erosion processes undercut cliff/remove protection of beach	Some may comment on role of coastal management strategies reducing size of beach.
Los Angeles close to San Andreas	Earthquakes linked to conservative plate movement can result in slope failure. Drought and wildfires may destroy vegetation.	Irrigation water blamed at La Conchita. Construction and fires may remove vegetation.

Other factors that influence distribution might include: cyclones in tropical areas or mid-latitude depression path e.g. UK) and local factors such as relief and geology.

Credit knowledge of the mechanics of landslides (e.g. shearing forces and liquefaction).

Parallel examples may be referred to (e.g. recent landslides in Oso, Washington county, USA and Ab Barik, northern Afghanistan, plus 2006 slide in Leyte, Philippines, La Conchita, California 1995 and 2005.) All involved heavy rain.
Human impacts of landslides not relevant.
No mention at all of Figure 7 - maximum 7 marks

Level	Mark	Descriptor
Level 1	1-4	Poorly structured. Describes some of the photographs and may assert that landslides occur here and/or in other places. May state a reason e.g. deforestation. Geographical terminology is rarely used. There are frequent written language errors.
Level 2	5-7	Some structure. Begins to explain the location of landslides, commenting on the role of physical and /or human factors in some/all of the environments shown in Fig 7 and/or others like them. Some geographical terminology is used. There are some written language errors.

Level 3	8-10	Well-structured explanation that makes effective use of Figure 7 and own knowledge. Distribution is addressed and physical and human factors are balanced. Appropriate geographical terms show understanding. Minor language errors.

Question Number	Indicative content
7 (b)	**Affecting more people –** • Increased numbers of affected people may be linked with population growth (examples from Philippines likely) and density. Migration to urban areas and living in risky locations (flood plains, river banks, steep slopes). May link to increase in vulnerability and risk equation. • Also to rising affluence ('more to lose') in NICs / BRICs/ middle-income nations. Growth in value of possessions (electronics) and more have insurance so more is reported. • Some credit may be given for climate change suggestions, e.g. drought / typhoons which are likely to affect more people (e.g. links with more intense hurricanes) **Causing fewer deaths** – • Fewer deaths linked to improved prediction, disaster response and post-event reconstruction (e.g. aseismic design of buildings). • Also low cost strategies like Red Cross evacuation sites for flood risk locations e.g. Bangladesh or drills in Japan (1st Sept annually) • Credit reference to detail about warning systems e.g. Hurricane and tsunami warning systems in Pacific • Capacity to cope increasing (e.g. Emergency kits and drills). Credit use of Risk Equation if appropriately explained. Growth in social media and texting means communications improve even to the poor. Issue of complacency however limits effectiveness (e.g. volcanoes like Mayon, Philippines) Good answers will use a range of examples of different hazards with detail to illustrate. Examples of recent hurricanes and floods may demonstrate both these trends most effectively e.g. Typhoon Haiyan in Philippines in Nov 2013: approx 7000 died but 12 m affected. Also Japan Tohoku earthquake. Some answers may question the trends and note that there have been high death rates in the last decade (e.g. Haiti earthquake 2010, South Asian earthquake and tsunami Boxing Day 2004).

Level	Mark	Descriptor
Level 1	1-4	Little structure. Has one or two descriptive ideas e.g. relating to more people being affected by storms, sea-level rise, or earthquakes. Frequent written errors.
Level 2	5-8	Some structure and provides some description of how disasters are increasing in severity or fewer people affected, but has limited details. Some geographical terminology is used. Some written language errors.
Level 3	9-12	Structured account providing reasons for the increased numbers of people affected but fewer deaths over time. Provides specific details and is commenting on both global trends. Geographical terms show understanding. Written errors are minor.
Level 4	13-15	Structured, detailed, and wide-ranging explanation of both global trends in disaster impacts. May recognise anomalies. Uses appropriate geographical terms and a range of detailed examples to show understanding. Written language errors are rare.

Question Number		Indicative content
8 (a)		**Ecology of Arctic areas** – A range of ecosystems are shown, some of which develop on frozen ground, others on thawed terrain. • The distribution of these can be expected to change as part of a wider series of vegetation changes linked to warming temperatures. • At greatest risk are the permanent ice cover and polar desert regions in the far north (no land to retreat to). • A good account may also suggest linked changes in wildlife distribution and food chains (e.g. invasive species like Spruce Bark Beetle and grizzly bears taking territory of polar bears). • There are opportunities to apply own knowledge about land/ marine ecosystems and tundra/ forest / treelines. Some may use structure of the 4 ecosystems for answer. **Impact of a warming climate** – Likely to explore impacts of warmer temperatures, earlier spring/summer, reduced ice/permafrost cover, changes to rainfall patterns on plants and animals. • Credit can be given for suggesting how warming is accelerated in the Arctic thus intensifying impacts. • Ice albedo changes and permafrost melting introduce warming feedback loops but ensure this is linked to ecology Do not credit human impacts (e.g. indigenous people's lives and culture). *No link at all to Figure 8 - maximum 7 marks.* *NB question asks for ecology, not environment so do not over credit answers that drift into discussion of ocean currents, sea level rise without ref to impacts on ecology*
Level	Mark	Descriptor
Level 1	1-4	Little structure. Unselective references to vegetation change, ice melt and a warmer climate. Geographical terminology is rarely used. Frequent written language errors.
Level 2	5-7	Some structure; some valid suggestions of how or why the ecosystems shown, or those drawn from own knowledge, will change in response to a warming climate. Some geographical terminology is used. Some written language errors.
Level 3	8-10	Well-structured account that can suggest a variety of ecological changes linked with global warming, linked to Figure 8 and own knowledge. Appropriate geographical terms show understanding. Written language errors are minor.

Question Number	Indicative content
8 (b)	**Amount and rate of future global warming** – attempts include IPCC reports and interim reports from, for example, the Met Office or Hadley Centre. • A range of scenarios for GHG emissions exist, focusing on CO2 (equivalent) ppm: 550ppm amount seen as critical divide between high-impact and lower-impact scenarios (focused on variety of effects e.g. coral bleaching, sea-level rises). • Likely to vary globally with more extreme effects in Arctic • Possibility of tipping points with sudden irreversible changes which could increase amount and rate **Difficult to predict** – • This hinges on economic factors, including world economic projections (growth of China, India; but slowdown since 2008 credit crunch); • Future population growth rates are unknown • Political factors will influence rate of change, including introduction of mitigation measures e.g. Australia's carbon trading; UK government's changing attitude to green taxation/ renewable energy , failure to implement Kyoto • Technological advances may be made to reduce emissions • Unforeseen consequences of attempts to mitigate • Roles of different players (Global groups/Governments/TNCS/ EU legislation on emissions/ local councils/individuals) • Credit impacts of natural causes (e.g. sunspots, volcanic eruptions onset of 'new ice age') and feedback loops /tipping points (albedo changes, permafrost melt) that could come into play, altering rate. • Variable reliability of data for past changes and scientists make different interpretations e.g. "Climategate" questions reliability of research data. Answer may be structured by "amount" and "rate" and better answers will distinguish between them by considering whether future rates will speed up, slow down or stay the same.

Level	Mark	Descriptor
Level 1	1-4	One or two generalised statements, perhaps 'no-one' fully understands the processes or can 'see into the future' for emissions trends. Geographical terminology is rarely used. There are frequent written language errors.
Level 2	5-8	Some structure. May describe a small range of valid issues such as economic projections for China and public enthusiasm for mitigation. Some geographical terminology is used. Some written language errors.

Level 3	9-12	Structured account with a range of explanations offered for why it is difficult to predict amount/rate. (May not distinguish between the two.) May use actual economic or emissions data to support arguments. Geographical terms to show understanding. Written language errors are minor.
Level 4	13-15	Well-structured account that explains a range of reasons for the difficulties predicting amount and rate. Likely to distinguish between the two. Arguments are well-grounded in scientific, economic or policy data/ facts. Uses appropriate geographical terms and detailed exemplification to show understanding. Written language errors are rare.

Question Number	Indicative content
9 (a)	**Glocalisation** – Strategy of adapting 'global' products to local tastes and customs • includes religious and cultural considerations (listed on Fig 9) but also Halal • Climate affects the supply of certain components e.g. types of spices, thinner duvets in warmer climates • Glocalisation also involves considerations of using locally-sourced inputs (less food miles) to reduce import costs (tariffs)/transport costs and contributes to local economy. • Parallel case studies of McDonald's, Levi, Nike, Cadbury and Marvel/Disney may be used, amongst others. • Answers may follow figure 9 and be structured around types of business (secondary and tertiary) but should focus on **reasons why** they have adopted glocalisation. **Important strategy for TNCs** – • Role in entering new markets and building market share / profits. • May comment on consistent use of logos /colour e.g. Unilever/Wall's "Heartbrand" logo used globally but product names are local (Dung Dung) • Growth of NICs/BRICs and slowdown in global 'core' has made it a priority strategy for many TNCs in recent years. • Creating local market for goods and "goodwill" amongst other businesses/employees (multiplier effect for TNC/suppliers). Answers that fail to explore "why" glocalisation is used and focus on a list of examples will be self penalising (though look for reasons hidden amongst the description) *No mention at all of Figure 9 - maximum 7 marks*

Level	Mark	Descriptor
Level 1	1-4	One or two generalised descriptive statements about meeting local people's preferences / needs. Geographical terminology is rarely used. There are frequent written language errors.
Level 2	5-7	Some structure. Can explain reasons why glocalisation occurs (taste, religion) with examples. Starts to explain reasons for this strategy (profits and/or markets/ environmental concerns). Some geographical terminology is used. There are some written language errors.
Level 3	8-10	Structured account detailing the main reasons why glocalisation has become an important strategy (may appreciate importance of new markets or range of TNCs now using the strategy). Appropriate geographical terms show understanding. Written language errors are minor.

Question Number	Indicative content
9 (b)	**TNCs** • Expect coverage of manufacturers (Nissan/ Dyson) and media (CNN, BBC, Al Jazeera) and service sector TNCs (Wallmart, Tesco), as well as oil majors (BP) as they search for resources/markets /production sites/ finance/ news • Fast food companies have major role (eg McDonalds/ Coca Cola) in creating demand/image/ brand recognition • TNCs role in economic but also cultural globalisation (do not expect explicit distinction). • May explore role of TNCs in facilitating globalisation itself through transport/communications (e.g. Facebook, Easyjet, Vodaphone). • May take a company by company approach and explore their business **International organisations** (IOs) • IOs may include World Bank, IMF, WTO as well as trade blocs (EU, NAFTA). Commonwealth relevant. • Key role in encouraging trade and links between countries • Role of EU in enabling migration which results in cultural/economic links between people • Credit other organisations, e.g. NGOS, if their role is clearly linked to globalisation. **Accelerate globalisation** – i.e. speeded up / extended reach of globalisation • Expect to see links between these players and the growth of an inter-connected world (economically, culturally or politically). • Role of transport/communication/information/technology in facilitating links • World seems to be shrinking due to roles of TNCs and IOs (e.g. tourism/ 24 hour news/ Emergency aid). • Expect to encounter a wide range of possible ideas that should be assessed on their merits e.g. searching new markets, out-sourcing, Kyoto Agreement, McDonaldisation. • May compare / assess relative importance of TNCs and IGOs in accelerating globalisation. Must do both TNCs and IOs to go higher into L3. Ignore irrelevant ideas about ethical/ environmental issues

Level	Mark	Descriptor
Level 1	1-4	One or two simple points about TNCs e.g. McDonald's using technology to grow, or an IO (EU likely), but few facts. Frequent written language errors.
Level 2	5-8	Some structure. Describes / asserts that TNCs and/or IOs are important but can only demonstrate this with a descriptive account of examples. Or may only have one idea e.g. McDonaldisation. Some geographical terminology used. Some language errors.

Level 3	9-12	Structured explanation of a range of ways in which TNCS and/or IOs accelerate the growth of globalisation (but do not expect balance). Has exemplification. Geographical terms show understanding. Written language errors are minor.
Level 4	13-15	Well-structured balanced account which explains a range of ways in which both TNCs and IOs accelerate the growth of globalisation. May consider relative importance of TNCs and IGOs. Uses appropriate geographical terms and detailed exemplification to show understanding. Written language errors are rare.

Question Number	Indicative content
10 (a)	**Note:** candidates might not appreciate these are wealthy parts of London and Greeks here are rich. **Global hub for international migration**. – Figure 10 shows ownership by EU nations (Spain, Greece, France) as well as USA and Russia (two major world powers). NB: High cost of London property so these are elite migrants Bullet points add data about Polish migration May suggest own examples also (post-colonial migrants from Caribbean and Indian sub-continent, also refugees). More billionaires than anywhere else in the world (May 2014) **Suggest reasons** – <u>Generic London reasons</u> include: political, cultural (including sport) and employment attractions of London; wealthy elites own multiple properties across the world; • Stock exchanges and HQs of TNCs– which will then tend to attract wealthy stock-brokers and executives • Inherent attractions of migrant enclaves shown in figure 10 and others as they develop over time (may know other concentrations e.g. Bangladeshi people in Tower Hamlets) • Wide range of employment opportunities: formal/informal and also "elite" vs low paid • Concentration of many languages spoken – creates a market for further investment and opportunities in translation (cumulative causation) • Universities, proximity to major ones, e.g. London (UCL, LSE, Imperial) and Oxford / Cambridge - BUT this mainly attracts African / Asian / Mid-East rather than those in the figure • Pull factors of access to NHS/benefits/education <u>Specific reasons for the groups</u> shown include: free movement granted to EU nationals (since 1993). 2004 A8 migrants and UK allowed movement for work (Compulsory case study) • Large presence of US citizens - may include TNC staff, diplomats, media personalities. • May also be aware of: sources of Russian wealth; London's current role as 'safe haven' for wealthy people from Eurozone e.g. Greeks - but do not expect this. • Best candidates may recognise the links between hubs and migrants *No mention at all of Figure 10 - maximum 7 marks* *Do not expect specific knowledge of London beyond figure 10*

Level	Mark	Descriptor
Level 1	1-4	One or two generalised descriptive points based on Figure 10. May assert that cities are attractive to migrants in general for generic reasons (fame, wealth or pull factors like employment). Geographical terminology rarely used. Frequent language errors.

Level 2	5-7	Some structure. Suggests some reasons why different groups of foreign nationals have taken up residence in a global hub. May make reference to attractions of London as a global hub which encourages migration. Some geographical terminology is used. There are some written language errors.
Level 3	8-10	Structured answer suggesting a range of specific reasons for the presence of the major groups shown (EU and non-EU nationals) linked to the attractions of London as a hub. Top of band is likely to recognise links Appropriate geographical terms show understanding. Written language errors are minor.

Question Number	Indicative content
10 (b)	**Social changes since 1900** – changes in work patterns, health, hygiene and nutrition have all increased life expectancy leading to large numbers in elderly cohorts. • NHS and free health care for all post WWII, e.g. Vaccination programmes for all • Government role in providing clean water/education campaigns, e.g. smoking bans • Role of H&S legislation and training to make work safer • A range of social changes have resulted in lower fertility (role of women, contraception. • Credit education leading to work changes (less manufacturing) which may have improved health and longevity. Also health campaigns (e.g. FAST stroke saves lives), • Social movements e.g. Suffragettes can also be linked with fertility. • Diet and personal fitness – awareness has much improved life expectancy **Altered population structure** – • Very significant ageing / greying of the population since the early 1900s. May have data linked to specific locations across the country (south coast vs London for example) • Life expectancy has increased from 60 to 80 • Fertility rates fell below replacement level in 1970s • May be aware of recent upswing in birth rate, largely due to presence of large numbers of migrants especially from EU • Migration **to** Mediterranean countries/elsewhere alters age profile in some locations NB question is about SOCIAL changes not economic but allow for overlap e.g. in work issues like H&S or attracting migrants who alter population structure. Exemplification may come from compulsory case studies or wider ranging ideas.

Level	Mark	Descriptor
Level 1	1-4	Limited identification of any social changes (but may assert we are ageing due to people living longer). Geographical terminology is rarely used. There are frequent written language errors.
Level 2	5-8	Some structure. Basic description of some population changes, such as ageing but lacking detail or explanation beyond simple statements ('because of the NHS'). Some geographical terminology used. Some written language errors.
Level 3	9-12	Structured explanation of how population structure has changed (identifies fall in births/young as well as the rise in elderly) applying a range of social factors. Geographical terms show understanding. Written language errors are minor.
Level 4	13-15	Well-structured explanation that links a detailed range of UK social changes (e.g. NHS) with many of the main population structure changes since 1900. Well exemplified and uses appropriate geographical terms to show understanding. Written language errors are rare.

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