GCE A Level

A110U20-1

O20-A110U20-1

Part of WJEC

TUESDAY, 13 OCTOBER 2020 – AFTERNOON

GEOGRAPHY – A level component 2
Global Systems and Global Governance

2 hours

A110U201
01

ADDITIONAL MATERIALS

In addition to this examination paper, you will need **one** WJEC pink 16-page answer booklet and a calculator.

INSTRUCTIONS TO CANDIDATES

Answer questions 1 **and** 2 and **either** 3 **or** 4 in Section A.

Answer questions 5 **and** 6 and **either** 7 **or** 8 in Section B.

Answer **one** question in Section C.

Use black ink or black ball-point pen.

Write your answers in the separate answer booklet provided.

Write your name, centre number and candidate number in the spaces at the top of the answer booklet.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets [ ] at the end of each question or part-question; you are advised to divide your time accordingly.

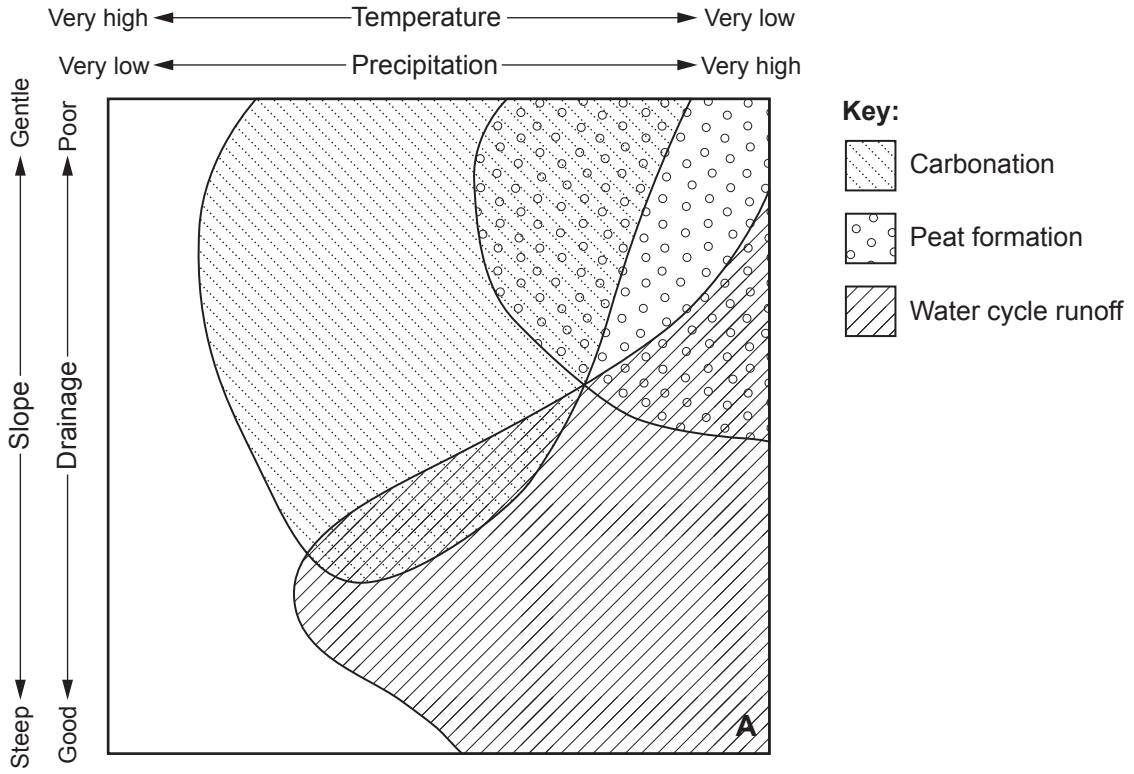
This paper requires that you make as full use as possible of appropriate examples and reference to data to support your answers. Sketch maps and diagrams should be included where relevant.

Section A: Global Systems – Water and Carbon Cycles

Answer questions 1 **and** *2 and* **either** *3* **or** *4.*

Make the fullest possible use of examples in support of your answers.

Figure 1: A graph showing relationships between environmental conditions (climate, slope and drainage) and the operation of selected water and carbon cycle processes



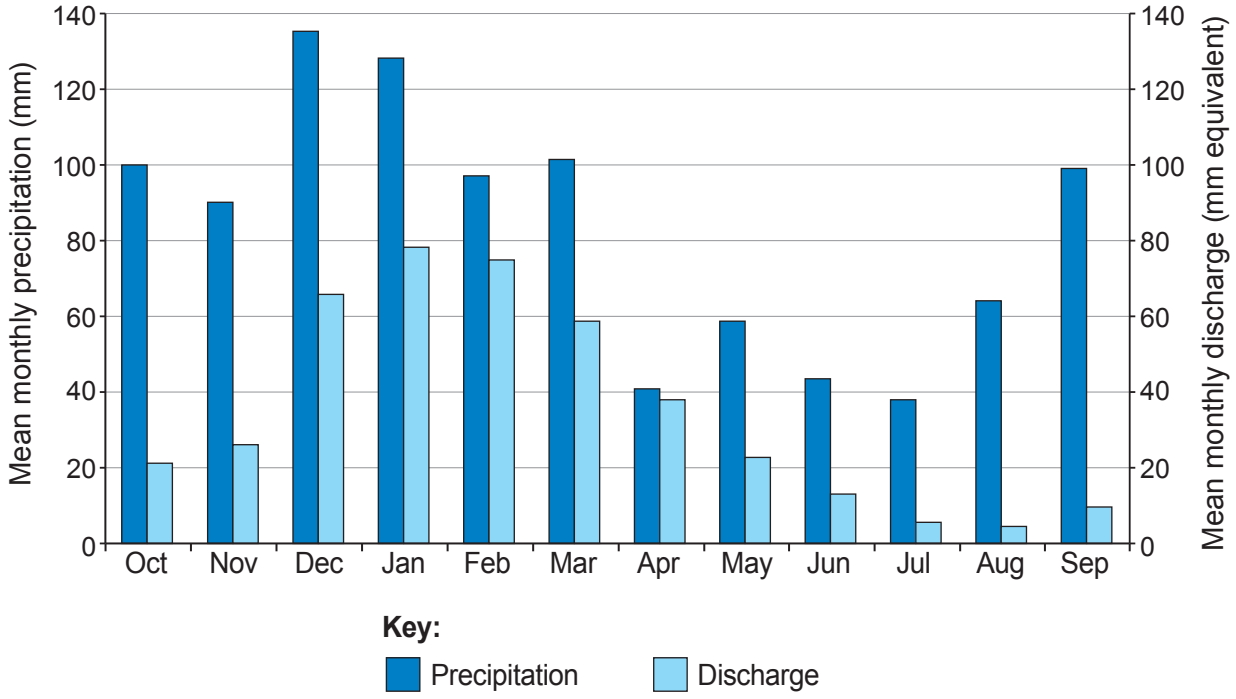
Source: Based on Briggs, D. and Smithson, P. (1985) Fundamentals of Physical Geography

1. *(a)* (i) Use **Figure 1** to identify the environmental conditions at **A** on the graph. [2]

(ii) Use **Figure 1** to describe how variations in temperature affect the operation of carbon cycle processes in areas with a gentle slope. [3]

(b) Outline the influence of climatic factors on carbon storage in the temperate grassland biome. [5]

Figure 2: Mean monthly precipitation and discharge for a UK river basin in a low-altitude grassland area



A110U201
03

2. *(a)* Use **Figure 2** to analyse the strength of the relationship between precipitation and discharge for the 12-month period shown. [5]

(b) Explain ways in which the graph shown in **Figure 2** might differ for a river basin of similar size in a neighbouring high-altitude grassland area. [5]

Either,

3. Evaluate strategies to increase local carbon cycle and water cycle storage. [20]

Or,

4. Evaluate possible consequences of water and carbon cycle feedbacks. [20]

Section B: Global Governance – Change and Challenges

Answer questions 5 **and** *6 and* **either** *7* **or** *8.*

Make the fullest possible use of examples in support of your answers.

Figure 3: Information about 11 refugee camps in Bangladesh for people who fled from violence in neighbouring Myanmar, 2017

Camp name	Camp population sizes	Distance of camp from Bangladesh-Myanmar border (km)
Kutupalong-Balukhali	441,300	1
Hakimpara	55,300	3
Nayapara	34,600	2
Jamtoli	33,500	8
Unchiprang	30,400	6
Thangkhali	30,000	7
Shamlapur	26,700	16
Kutupalong	25,800	5
Leda	24,300	3
Moynarghona	21,500	8
Chakmarkul	10,500	9

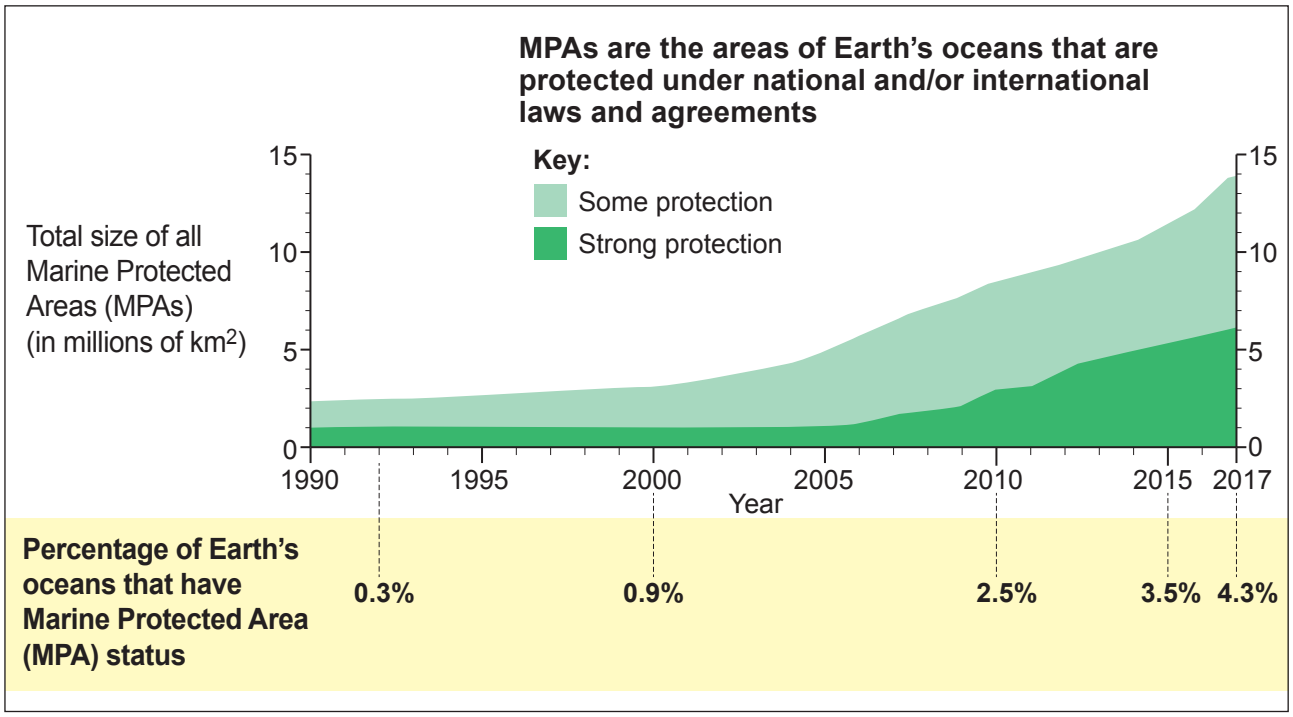
Source: https://reliefweb.int

5. *(a)* (i) Calculate the interquartile range of the camp population sizes shown in **Figure 3**. Show your working. [2]

(ii) Use **Figure 3** to analyse the relationship between the camp population sizes and their distance from the Bangladesh-Myanmar border. [3]

(b) Suggest reasons why measurements of migrant populations, such as those in **Figure 3**, are often inaccurate. [5]

Figure 4: The growth of Marine Protected Areas (MPAs), 1990 – 2017



Source: https://meeresatlas.org/en/chapter/exploitation-and-protected-areas/

6. *(a)* Use **Figure 4** to analyse how far the protection of Earth's oceans improved between 1990 and 2017. [5]

(b) Outline how the concept of the Global Commons supports the need for improved management of Earth's oceans. [5]

Either,

7. 'Cultural change in the UK has occurred mainly because of its past role as a maritime power.' Discuss. [20]

Or,

8. 'Injustices caused by land grabs are greater than those caused by competition over ocean resources.' Discuss. [20]

Section C: 21st Century Challenges

Answer **either** *question 9* **or** *question 10.*

In your answer to either question 9 **or** *10, you should use* **Figures 5**, **6**, **7** *and* **8** *and apply your knowledge and understanding from across the whole specification.*

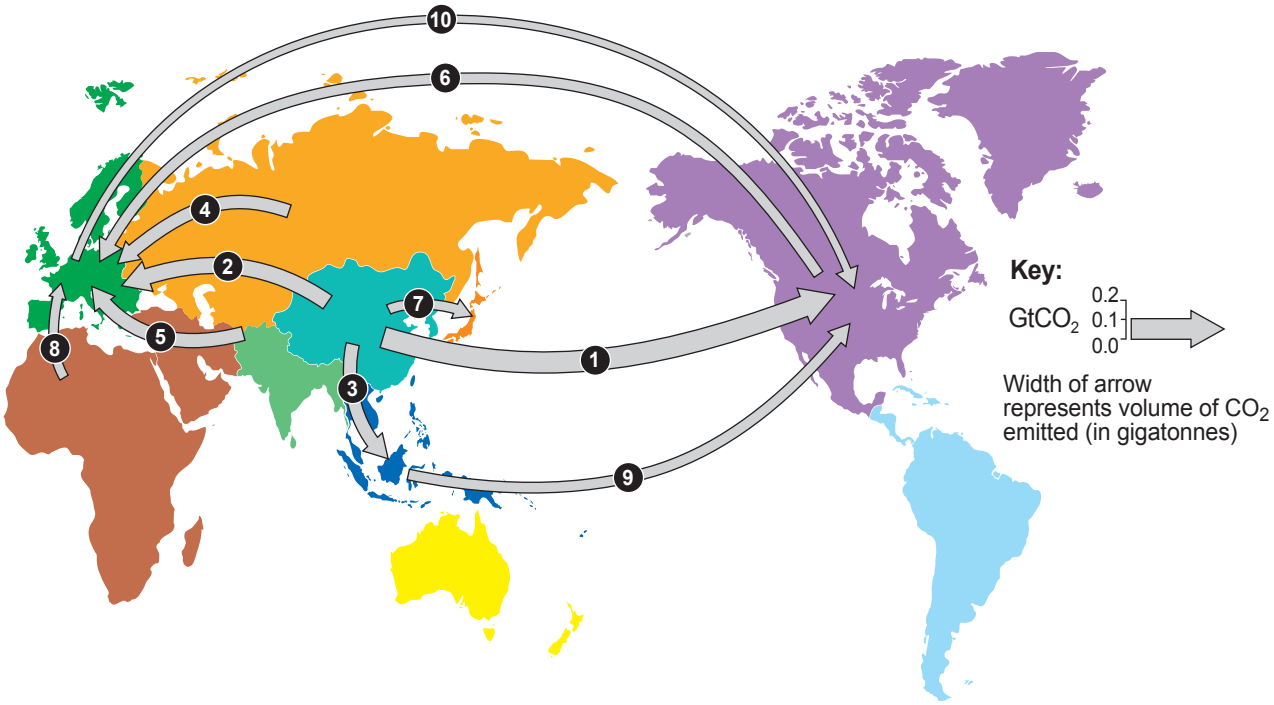
Either,

9. To what extent do global flows impact negatively on the physical environment? [30]

Or,

10. To what extent have global flows made all countries more interdependent? [30]

Figure 5: The ten largest global trade flows ranked according to their carbon emissions (the volume of carbon dioxide emitted during manufacturing and transport), 2016

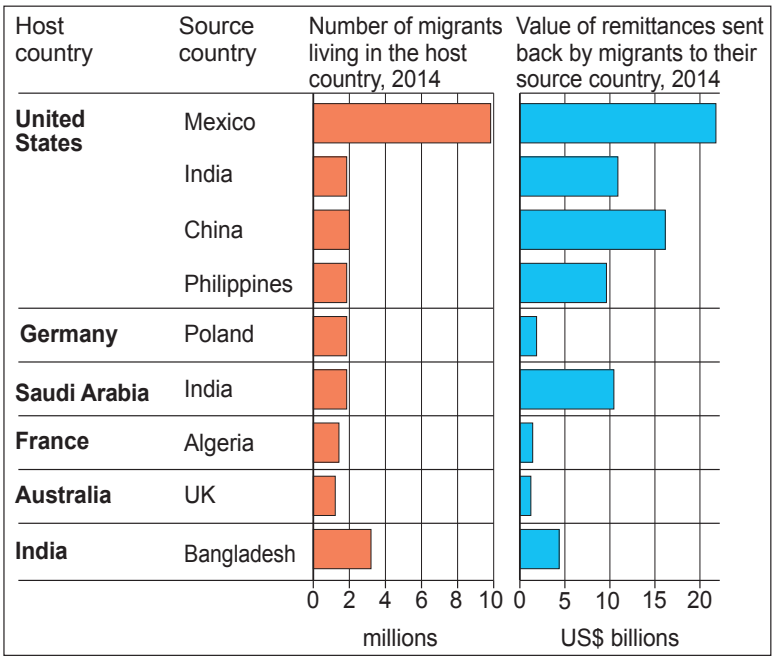


Rank	Flow Direction	% of all carbon emissions due to global trade flows	Rank	Flow Direction	% of all carbon emissions due to global trade flows
1	China to North America	9%	**6**	North America to Europe	4%
2	China to Europe	8%	**7**	China to Japan	4%
3	China to rest of Asia	7%	**8**	Africa to Europe	4%
4	Russia to Europe	6%	**9**	South Asia to North America	4%
5	South Asia to Europe	5%	**10**	Europe to North America	3%

Source: carbontrust.com

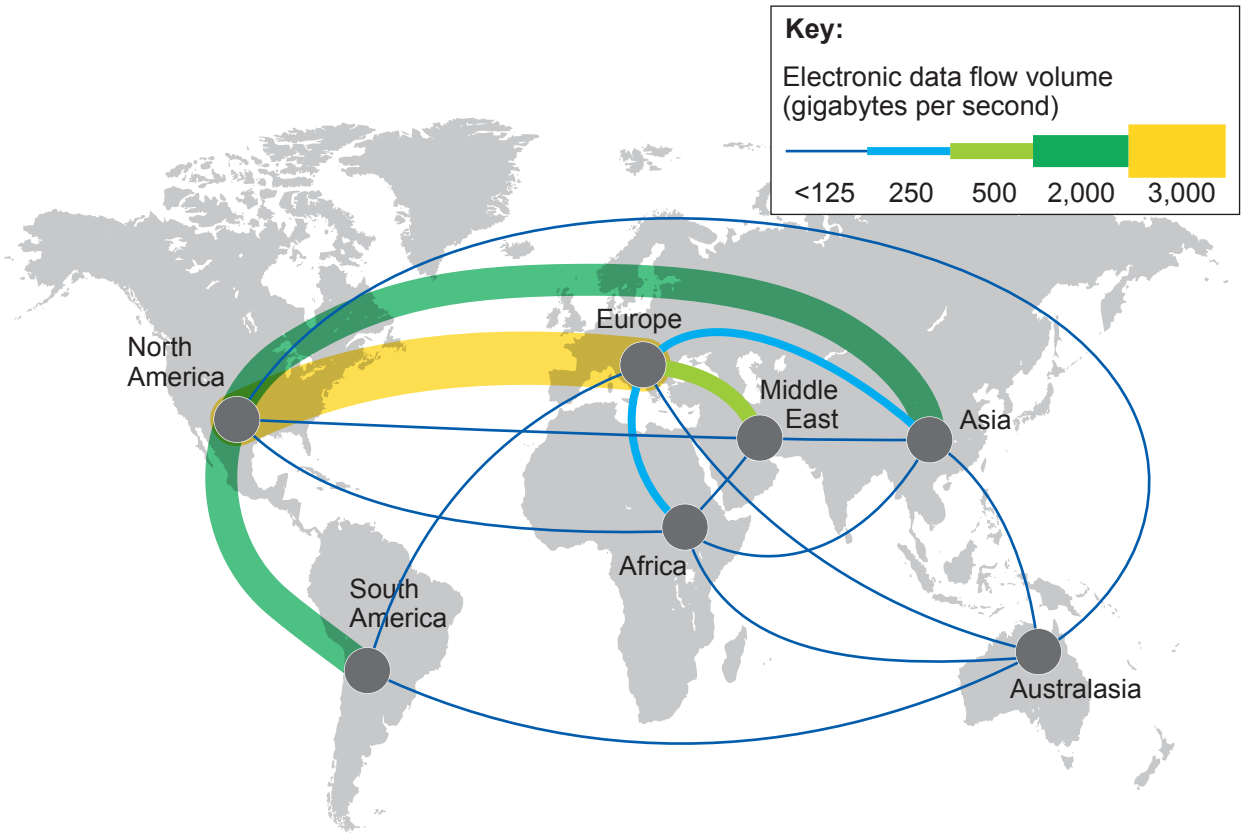
Figure 6: Global flows of electronic waste have economic value for recipient countries such as Ghana

Figure 7: Selected flows of international migrants and their remittances, 2014



Data source: migrationpolicy.org

Figure 8: Flows of data between world regions, 2015



Source: McKinsey

END OF PAPER