



SUBJECT:	Geography
PAPER NUMBER:	I
DATE:	4 th October 2021
TIME:	4:00 p.m. to 7:05 p.m.

Answer **FOUR** questions in total. Questions carry equal marks.

- Figure 1 illustrates one of the most visible consequences of global warming: an increase in the intensity and frequency of extreme weather events such as snowfalls. Snowfall is an important aspect of global climate systems with physical, ecological, and societal impacts.



Figure 1: Snowfall event in Germany in early February 2021
(Source: *Deutsche Welle*)

- Discuss the connection between global warming and the occurrence of extreme snowfall events in the Northern Hemisphere. (15)
 - Discuss what type of social and economic negative impacts may result from extreme snowfall events. (10)
- Slope mass movements are sensitive to a number of controlling factors, some of which are linked to the slope's physical properties. Discuss **THREE** physical properties that may affect slope mass movements. (15)

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- (b) The measurement of slope angles in the field is an important technique in order to collect data about slope steepness. With the help of Figure 2, explain the field technique used to measure slope angles. (10)

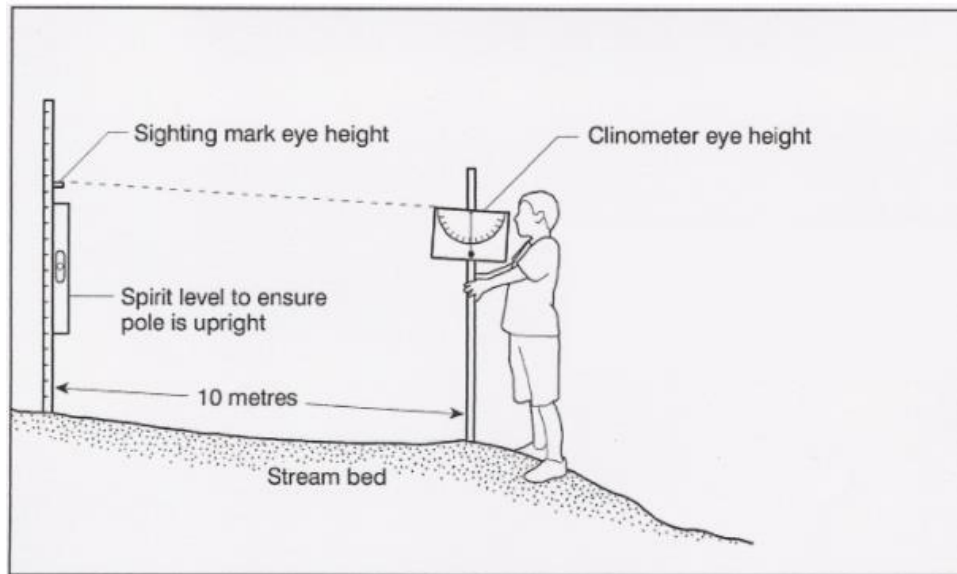


Figure 2: Field measurement of a slope angle
(Source: <http://jkgeography.com>)

3. Waves are a significant factor in coastal processes as they allow for the build-up or breakdown of coastal landforms.
- (a) With the help of an annotated sketch, explain the processes that are responsible for the development of waves. (13)
- (b) Name and describe the **FOUR** main types of erosional processes operating on the coast. (12)
4. (a) With reference to drainage basin morphology, explain how the river gradient adjusts, over time, from source to mouth and give reasons for your answer. (9)
- (b) With the help of annotated diagram/s and a written description, discuss the relationship between the following river processes and properties:
- (i) river bed roughness and type of stream flow; (8)
- (ii) channel shape and its position along the river's long profile. (8)
5. The effects of soil conservation may not reveal in the short-time perspective, yet they will be beneficial for future generations (EOS, 2020).
- (a) Discuss the **FIVE** factors which are responsible for soil formation. (15)
- (b) Humankind in general, and farmers in particular, benefit from soil conservation. Explain **FIVE** of these advantages. (10)

6. The importance of biomes cannot be overestimated. Biomes have changed and moved many times during the history of life on Earth. More recently, human activities have drastically altered these communities. Thus, conservation and preservation of biomes should be a major concern to all (UCMP, 2019).
- (a) Describe and explain the interaction between climate, soils and vegetation in the tropical rainforest biome. (10)
 - (b) Using **ONE** example of a tropical rainforest biome, discuss how human activities are altering and/or threatening the sustainable conservation of this named biome. (15)
7. (a) Explain how the latitudinal differences of the Earth's radiation budget drive atmospheric and oceanic circulation. (12)
- (b) With reference to **THREE** examples of greenhouse gas emitters, discuss how greenhouse gases are currently influencing the heat energy exchanges in the global climate system. (13)
8. According to the World Health Organisation (2021), an estimated 55 million people are globally affected by droughts every year. Droughts also being the most serious hazard to livestock and crops in nearly every part of the world. Discuss the following statements with reference to the above facts:
- (a) Atmospheric processes and patterns are responsible for the global distribution and occurrence of drought; (10)
 - (b) Drought has a range of impacts, which can accumulate beyond the areas of drought and linger well after the drought ends; (5)
 - (c) Climate change is intensifying drought as an environmental hazard; (5)
 - (d) Good land and water management is crucial to adapt to the effects of drought in areas like the Sahel regions. (5)



SUBJECT: **Geography**
PAPER NUMBER: II
DATE: 5th October 2021
TIME: 4:00 p.m. to 7:05 p.m.

Answer **FOUR** questions in total. Questions carry equal marks.

1. Figure 1 is a map showing internal migration in India.

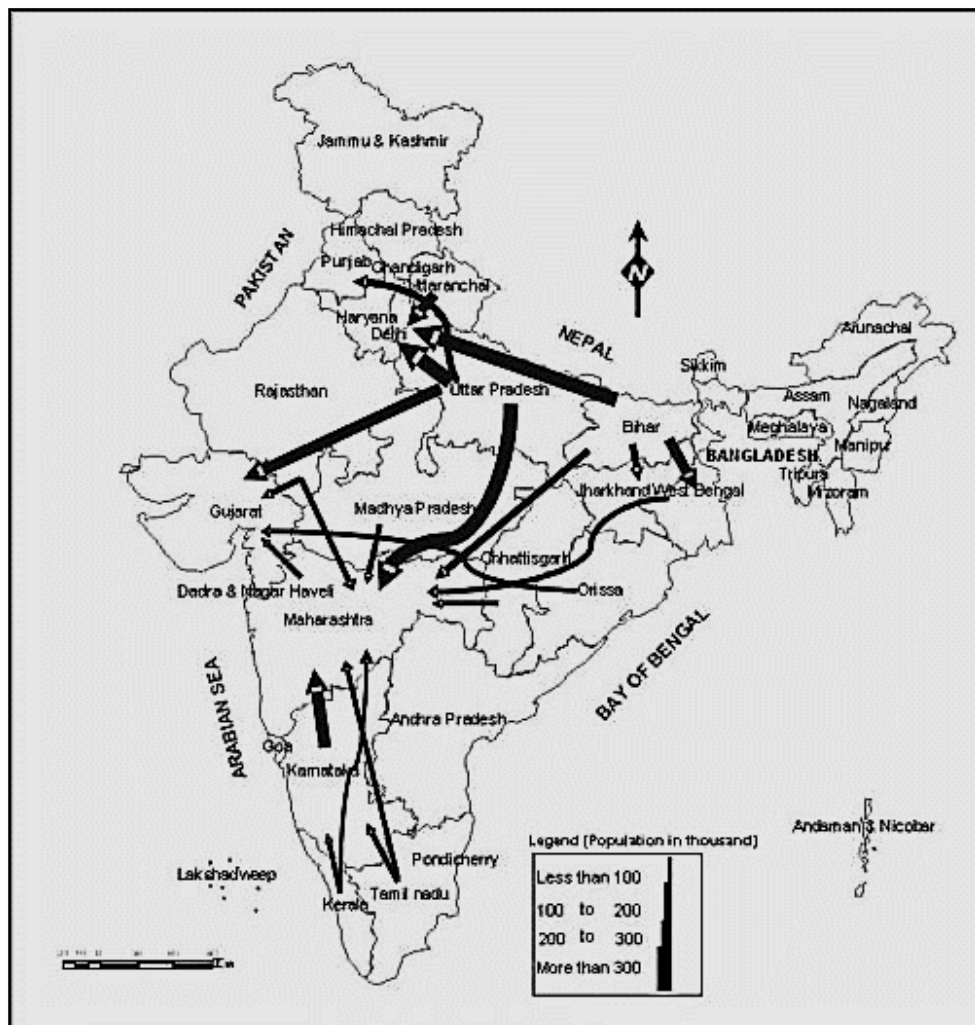


Figure 1: Internal Migration flows in India
(Asian Population Studies, 2009)

- (a) Discuss **THREE** main factors that trigger internal migration in developing countries such as India. (9)
- (b) Discuss **THREE** main issues that internal migrants tend to face. (9)

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- (c) Zelinsky’s Model is one of the theories of migration. Explain **each** stage of this model. (7)
2. Mexico has been called the ‘birth place’ of the Green Revolution.
- (a) Describe the main characteristics of the Green Revolution and list **TWO** successes and **TWO** failures of this revolution. (8)
- (b) Discuss **THREE** ways how farming and agricultural activities can be a threat to the natural environment. (9)
- (c) Discuss the role that organic farming has in being sustainable and in minimising the threats discussed in part (b) of the question. (8)
3. "A 5000 square meter waste-to-energy facility planned to be built in Magħtab and running by 2023, will address 40 per cent of Malta's total waste usage.... The remaining 60 per cent will be seen to through different ways of recovering and recycling, with the introduction of waste streams and recycling at source" (<https://www.independent.com.mt>).
- (a) Explain **FOUR** current waste separation options in the Maltese Islands. (8)
- (b) Discuss the importance of waste separation at source. (8)
- (c) With reference to the planned waste-to-energy facility, discuss the concept of waste as a resource (WaR). (9)
4. Figure 2 shows the international tourist arrivals by world region between 1950 and 2018.

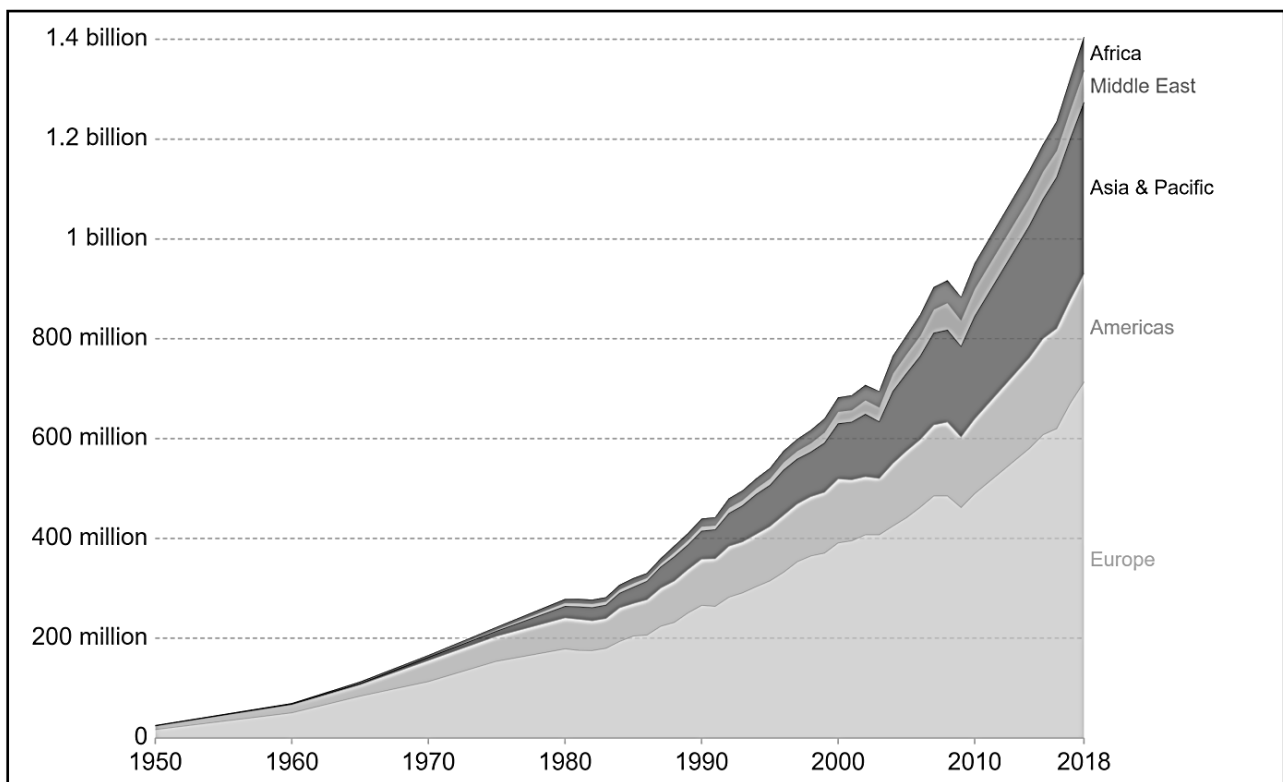


Figure 2: International Tourist Arrivals by World Region (<https://ourworldindata.org/tourism>)

- (a) Explain the main findings of Figure 2. (5)
 - (b) Discuss **FOUR** factors that have been responsible for the overall trend in international tourism shown in Figure 2. (12)
 - (c) Discuss **TWO** positive economic and **TWO** negative socio-cultural impacts of tourism. (8)
5. "Urbanisation refers to a proportion of the national population living in urban areas. Urban growth refers to an increase in urban population size, independent of rural population" (United Nations Population Division, 2002).
- (a) List **FOUR** main characteristics that are associated with urban sprawl. (4)
 - (b) Discuss **THREE** main causes and **THREE** main consequences of urban sprawl. (12)
 - (c) Explain **THREE** types of policies that can be implemented to reduce the consequences of urban sprawl discussed in part (b) of the question. (9)
6. Table 1 is shows data relating to the regional distribution of famine deaths by world region between 1870 and 2010.

REGIONAL DISTRIBUTION of FAMINE DEATHS: 1870 - 2010		
Region	Number of Famine Deaths	% of total famine deaths
Middle East	2.1 million	2%
Africa	9.6 million	9%
Europe	18.2 million	17%
South Asia	16.6 million	16%
East and S.E. Asia (excl. China)	7 million	7%
China	49.5 million	47
Latin America	1.5 million	2%

Table 1: Famine deaths by world region between 1870 and 2010
 (adapted from <https://sites.tufts.edu/wpf/famine/>)

- (a) Describe the data presented in Table 1. (5)
- (b) Discuss **THREE** causes and **THREE** consequences of famine. (12)
- (c) Discuss **TWO** benefits and **TWO** drawbacks of food aid in dealing with the problem of famine. (8)

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7. Figure 3 shows the newly licensed “new” and “used” vehicles by district in the Maltese Islands in 2017 and 2018.

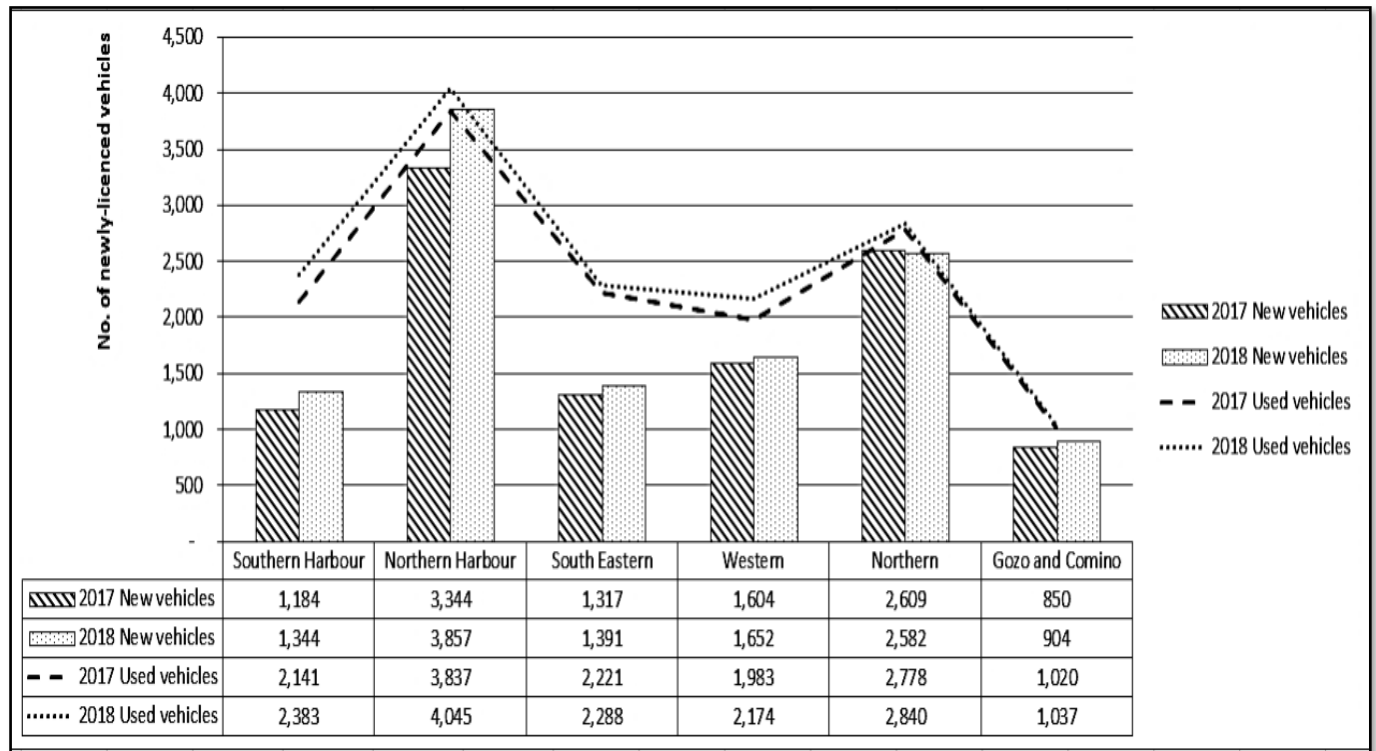


Figure 3: Newly licensed “new” and “used” vehicles by district in 2017 and 2018. (Adapted from: NSO Transport Statistics, 2019)

- (a) Describe the key findings shown in Figure 3. (7)
 - (b) Discuss **FIVE** main impacts that Malta is facing as a result of the trend shown in Figure 3. (10)
 - (c) Discuss **FOUR** actions taken, or that should be taken, to minimise the impacts listed in part (b) of the question. (8)
8. In 2019, travel and tourism’s direct, indirect and induced impact accounted for over 10% of the global GDP (World Travel and Tourism Council, 2020).
- (a) Explain Myrdal’s concept of cumulative causation. (6)
 - (b) Discuss the applicability of Myrdal’s concept of cumulative causation within the tourism industry. (10)
 - (c) Discuss the impact that Myrdal’s concept of cumulative causation in the tourism industry has on land use. (9)