



Regent House
Geography Department

AS Physical Geography
Past Paper Questions

Fluvial Environments

Causes of flooding and its effects on people, property and the land – Pakistan (LEDC) and Mississippi (MEDC)

'The beneficial effects of flooding usually outweigh the detrimental effects.' Discuss this statement with reference to the large scale drainage basin or delta you have studied.

(Jan 09)

With reference to a case study of flooding in a large scale drainage basin or its delta, describe and explain the physical and human causes of the flooding. (Summer 09)

'Flooding can have beneficial and detrimental effects on people, property and the land.'

Discuss this statement with reference to your case study of a large scale drainage basin or its delta. (Summer 10)

'The causes of flooding, although complex, are related predominantly to climatic factors.'

To what extent do you agree that this statement is valid for a large scale drainage basin or delta you have studied? (Jan 11)

With reference to a large scale drainage basin or its delta, describe both the beneficial and detrimental effects of flooding on people and property. (Summer 12)

Describe and explain the physical and human causes of flooding in a large scale drainage basin or its delta. (Summer 13)

'Flooding can have beneficial and detrimental impacts on people.' Discuss this statement with reference to your case study of a large scale drainage basin or its delta. (Summer 15)

With reference to a case study of flooding in a MEDC, describe the causes of the flood and explain the impacts it had on people, property and the land. (SAM)

General – Drainage basin

'The drainage basin is an open system.' Discuss this statement with reference to the inputs, outputs, stores and transfers of water and sediment. (Summer 11)

Explain fully how any three characteristics of a drainage basin can influence river discharge and the storm hydrograph. (Summer 14)

With reference to places for illustration, explain why some rivers need to be channelized and evaluate how this can be achieved through re-alignment, re-sectioning and dredging. (Summer 17)

General - River features

With the aid of annotated diagrams, describe and explain the river processes involved in the formation of:

- A waterfall
- One type of delta (Jan 10)

Describe the processes and the conditions under which rivers erode and deposit sediment. Explain the importance of these processes in the formation of a river meander. (Jan 12)

Explain, using annotated diagrams, the river processes involved in the formation of natural river levees and deltas. (Jan 13)

With the aid of annotated diagrams, describe and explain the river processes involved in the formation of both oxbow lakes and natural river levees. (Jan 14)

Explain the processes involved in the formation of a river meander and its features, including riffles and pools. (Summer 16)

Ecosystems

Regional scale case study of a tundra ecosystem – North Slope, Alaska

With reference to your case study of a Tundra ecosystem, evaluate the actual and potential impacts of climate change upon it. (SAM)

Small scale study of an ecosystem – Breen Wood

Describe the physical characteristics of a small scale ecosystem you have studied and discuss how energy moves through the ecosystem. (Jan 09)

Describe the physical characteristics of a small scale ecosystem you have studied, and explain the operation of the food chains within your chosen ecosystem. (Summer 10)

Describe how energy is transferred and nutrients are cycled in a small scale ecosystem you have studied. (Summer 12)

Describe the biotic and abiotic components of your small scale ecosystem case study and discuss their interaction in the cycling of nutrients. (Jan 14)

With reference to your small scale ecosystem case study, describe its biotic components and discuss fully their role in the nutrient cycling process. (Summer 15)

With reference to your small scale ecosystem case study, describe its abiotic characteristics and explain how the biotic components interact to produce its trophic structure. (Summer 16)

With reference to your small-scale ecosystem case study, explain how this ecosystem functions through energy flow and nutrient cycling. (Summer 17)

A small/regional scale case study of a vegetation succession – Umbra Dunes

Describe and explain the characteristics of one vegetation succession you have studied.

(Summer 09)

Explain the processes of environmental change which have produced all the stages in a vegetation succession you have studied at a small or regional scale. (Jan 11)

Describe and explain the biotic and abiotic changes which occur in your small or regional scale study of vegetation succession. (Summer 13)

With reference to your small/regional scale case study, describe and explain the progressive biotic and abiotic changes which occur during vegetation succession. (Summer 14)

Atmosphere

A national scale study of the effects of one hurricane/tropical cyclone – Hurricane

Katrina

For a named hurricane event, describe the effects of the hurricane on people and property and evaluate the effectiveness of the protective measures used to reduce loss of life and damage to property. (Jan 10)

With reference to a hurricane or tropical cyclone you have studied at a national or regional scale, evaluate the protective measures used to reduce the loss of life and damage to property. (Jan 11)

With reference to your study of a hurricane/tropical cyclone, describe and evaluate the protective measures used to reduce loss of life and damage to property. (Summer 14)

Explain the conditions necessary for the formation of a hurricane and use your case study of a hurricane/tropical cyclone to discuss its effect on people. (Summer 15)

Describe the management strategies used to reduce the impact of a hurricane, tropical cyclone or typhoon you have studied. Evaluate their effectiveness in relation to people and property. (Summer 17)

General

Contrast the effects of low and high pressure systems on the weather of mid-latitude areas. (Summer 10)

With the aid of an annotated diagram, describe the general structure of hurricanes and explain the conditions required for their formation. (Jan 13 and SAM)