

June 09

3 (b) Storm beach - at back, near cliff line - represents ridge where material is thrown by swash during extreme conditions (1) and thus, is above the level of high spring tides (1). Berms are formed by the swash during high tide (1) - the ridges at the back of the beach represent the section highest up the beach where material was deposited in a particular tidal cycle (1). Cusps form where sand and shingle meet and the gradient begins to steepen (1). This is due to strong swash and stronger backwash (1) - the strong scouring action removes material, especially from the centre of the semicircular depression creating the cusp (1).
Runnels are depressions in sand between ridges left as tide goes out (1) linked to breakpoint of the waves (1). 4 marks

3 (c) These are long, narrow ridges of sand and/or shingle that are attached to the land at one end - proximal end. The distal end is in the sea and often extends partly across an estuary. This end can be hooked and is likely to change its position over time. Salt marsh often develops behind and sand dunes often present. They form due to the presence of a lot of material; the presence of the process of longshore drift, the dominance of constructive waves and the appropriate coastal configuration - presence of an estuary or a change in direction of the coast.
Examples, illustrations are both valid areas of exemplification. 7 marks

Level 1 (1-4 marks)
Describes the landform generally - shape.
Begins to explain.
Answer may be imbalanced - and clearly an emphasis on one element.
Some use of appropriate terminology present at the higher end.

Level 2 (5-7 marks)
Description is more precise.
Response is more balanced.
Explanation is clear.
Appropriate geographical terminology is used.

- d describe
- e explain

70% II

3 (b) (i) Idea of change of height inland is worth 1 mark + 1 for elaboration. There should be recognition of increasing height with distance inland initially and subsequent reduction in height of grey dunes. Differences may be noted between the embryo and fore dunes or both of these and the main ridges. The reductions in height between the ridges may also be considered and the presence of slacks. Reference to changing colour of dunes, increased stability.
3x1. 1 mark for appropriate use of evidence. (3 marks)
AO1 - 1
AO2 - 1
AO3 - 1

3 (b) (ii) The following conditions are required for the development of sand dunes - a wide range between high and low tide to expose a large area of sand; an abundant supply of sand on the beach that will provide the sand for the dunes (but decreases further inland so the ridges are of a lower height); a gentle beach profile; prevailing onshore winds to blow the sand from the beach inland; vegetation that will stabilise the sand in mounds - embryo dunes and facilitate the build-up of the dune ridges. There may be reference to the steeper slopes facing the wind where wind speed is greater in contrast to the more sheltered area on the leeward side where speed reduced after highest part crossed. Increased speed at the bottom of the slope leads to erosion and the formation of slacks. (5 marks)
AO1 - 3
AO2 - 2

3(c) Description should relate to the appearance of the landform, e.g. that a spit is a narrow, elongated feature comprised of sand and/or shingle which is attached to the land at one end and extends from this across an estuary or where the coast changes direction; it may be curved and widen towards the opposite end that is not attached to the land. **(15 marks)**

Explanation should relate to relevant conditions and processes, specific to the landform(s) being consider, e.g. for a spit, these form where there is a break in the line of the coast, due to the presence of a river estuary or bay. The direction of longshore drift is dependent on the direction of the prevailing wind. A south westerly wind will transport sediment eastwards as a result of longshore drift (expect explanation with reference to swash and backwash) and this will lead to an extension across a north-south aligned inlet. As the spit builds across the inlet/estuary, it often curves at the end furthest from the land. This is due to wave refraction as material is carried behind the spit where conditions are calmer and due to the presence of a secondary wind direction which has a compensating effect on the dominant wind direction.

Level 1 (Basic) 1-6 marks

Describes landform – basic.

Begins to explain – processes noted.

May be very good on one part only.

Points made are simple and random.

Level 2 (Clear) 7-12 marks

Some description of landform(s) is present.

Begins to develop explanation of two landforms – processes defined.

There may be clear imbalance between the detail on two landforms or the two commands.

Develops answer with clearer, more complete sequence and more appropriate terminology.

Level 3 (Detailed) 13-15 marks

Clear, purposeful description of two or more landforms – can visualise.

Explanation of two landforms is purposeful – processes explained.

Developed answer with clear and complete sequence – links statements, easy to follow.

Appropriate terminology is used.