

#### GEOGRAPHY

Paper 3 Advanced Physical Geography Options INSERT

9696/33 October/November 2019

1 hour 30 minutes



#### READ THESE INSTRUCTIONS FIRST

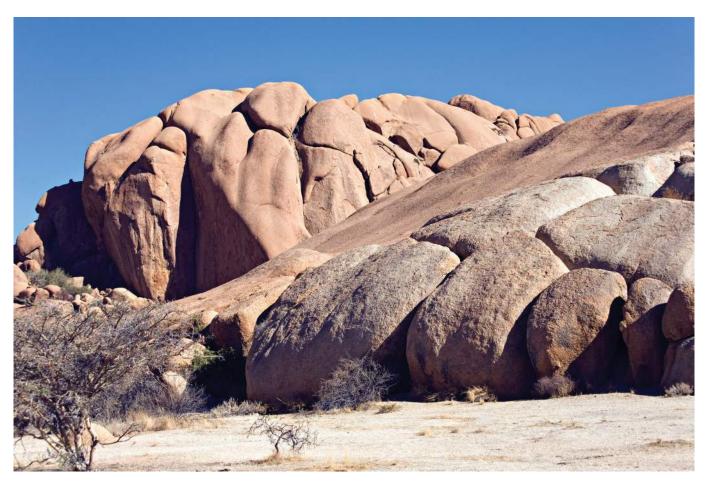
This Insert contains all the resources referred to in the questions.

This document consists of 6 printed pages and 2 blank pages.

# Fig. 1.1 for Question 1

2

## A landform in a tropical environment





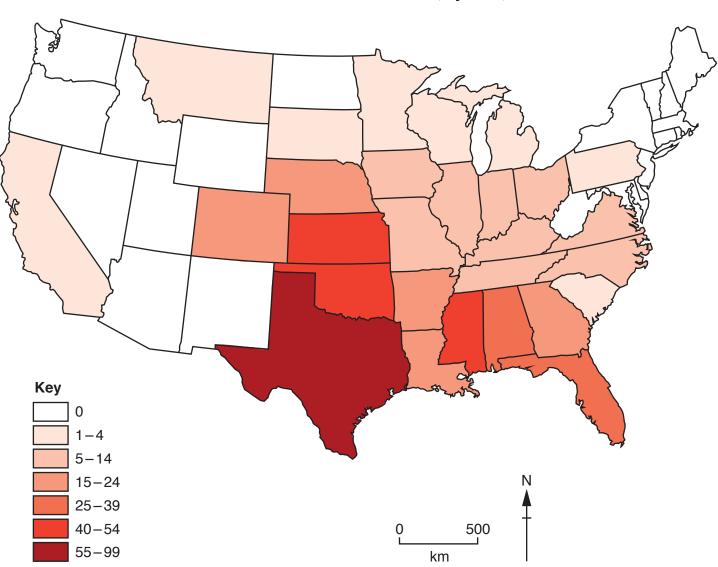
3

### A model of a coastal dune system

| sea                                     |             | water table     |               | soil depth      |               | -12-4-2       | В        |
|---|-------------|-----------------|---------------|-----------------|---------------|---------------|----------|
| location/type<br>of dune                | strand line | embryo<br>dunes | fore<br>dunes | fixed<br>dunes  | dune<br>slack | dune<br>scrub | woodland |
| approximate<br>distance from<br>sea (m) | 0-20        | 20-80           | 80-150        | 150-300         | 300-500       | variable      | variable |
| pH at surface<br>of soil                | 8.5         | 8.0             | 7.5           | 7.0             | 6.5           | 6.0           | 6.0      |
| soil colour                             | yellow      |                 |               | yellow and grey |               | grey          | brown    |
| % organic content                       | <1          | 2.5             | Į             | 5               | 20 >40        |               | 40       |
| % calcium carbonate                     | 10 8        |                 | 5             | 1               | <0.1          |               |          |

Fig. 7.1 for Question 7

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## The distribution of tornadoes in the USA, by state, in 2016

https://xtremepape.rs/



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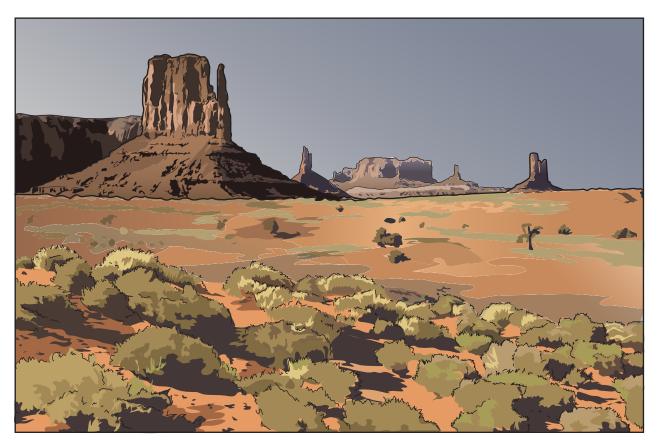
#### The names of the states



# Fig. 10.1 for Question 10

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## Some landforms in a hot arid environment



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