Name: Class: Mark:

1. A bank has an app which is used by customers on smartphones or tablets.

(a) Explain why encryption is needed for the app. [2]

(b) The bank has chosen to make use of asymmetric encryption.

Two keys are used as part of the encryption process.

Tick the correct boxes to show who can access each key. [2]

|  |  |  |
| --- | --- | --- |
|  | **Accessible by bank’s server** | **Accessible by user’s app** |
| Private key |  |  |
| Public key |  |  |

(c) The bank decided not to use symmetric encryption. Explain why they are likely   
to have made this decision. [2]

(d) The app transmits private data through the Internet which is a public network. A customer phones the bank to say that they are concerned about this as hackers may be able to gain access to their data.

Explain why the bank will not be concerned about this. [2]

(e) A customer also accesses their bank details via the bank’s web site. They do this on their home network making use of Wi-Fi.

State **two** types of encryption that are likely to be used in this situation. [2]

[Total 10 marks]