



Question 22.

a) Segment 1 - transmission medium microwave
from mobile phone. Appropriate because
of wireless transmission over a short,
distance.

Segment 2 - transmission medium twisted pair -
twisted is cheap and since ~~it~~ it is across
mountains, there will be no interfering signals.

Segment 3 - transmission medium coaxial cable -
because signals are travelling through populated
areas, there may be some interference
from electromagnetic communications. Coaxial
is protected from these.

Segment 4 - transmission medium - fibre-
optic cable - because in city, large volumes
of ~~data~~ data are required to be
transmitted at a fast speed, and
any stray signals will not interfere with
the transmission.

b) Advantages:

- She does not have to carry a cable around to plug into a phone socket
- She may be travelling to areas with no communication technology, so wireless transmission here is the only option.
- If she were to use a cable and plug into different destinations consistently, this would make it difficult to send information to her.

c) A copy of the dictionary would assist her in the queries as in the first step of the query, 'select' she would be able to choose from the list of ~~the~~ 'field name'. She would also be able to search more accurately in the 'where' stage as the data dictionary would tell her whether the data was numeric or alphanumeric. This would also benefit her in the 'order by' stage.