

4 (a) State **three** features of the orbit of a geostationary satellite.

1.
.....
2.
.....
3.
..... [3]

(b) A signal is transmitted from Earth to a geostationary satellite. Initially, the signal has power 3.2 kW. The signal is attenuated by 194 dB.

Calculate the signal power received by the satellite.

power = W [2]

(c) Suggest one advantage and one disadvantage of the use of geostationary satellites compared with polar-orbiting satellites for communication between points on the Earth's surface.

- advantage:
.....
- disadvantage:
..... [2]

[Total: 7]