

ITS 413 – QUIZ 2

First name: _____ Last name: _____

ID: _____

Total Marks: _____

out of 10

- Write your name and ID in the space provided at the top of the sheet.
- Answer the questions on this sheet(s) only, using the space given.
- When asked to *describe* or *explain* something, your answer must be clear, concise and unambiguous. Usually about 1 to 4 sentences.

Question 1 [2 marks]

The IEEE 802.11 MAC protocol aims to ensure only one node transmits at a time, hence avoiding collisions at a receiver. *Explain* a case when a collision can still occur.

Question 2 [2 marks]

True or false?

- a) Time Division Multiple Access (TDMA) is a method for sharing access to a wireless channel amongst a group of users. T / F
- b) Clients using IEEE 802.11a can associate with Access Points using IEEE 802.11b T / F
- c) DCF in IEEE 802.11 MAC is more efficient when sending smaller payloads. T / F
- d) One way of increasing the per user throughput in a IEEE 802.11 wireless LAN is to add another Access Point to the network. T / F

Question 3 [3 marks]

List *and describe* the two approaches for clients to discover Access Points in IEEE 802.11.

Approach 1

Approach 2

Question 4 [3 marks]

List *and describe* one advantage and one disadvantage of using a decentralised wireless network architecture (such as multi-hop wireless networks) compared to a centralised wireless network.

Advantage

Disadvantage