MODULE D DATA TRANSMISSION · D1

Packets and packet switching

Original practice questions · 20 marks · ~25 minutes · Cambridge 0478 syllabus 2.1.1

Name _____ Date _____

Instructions. Answer all questions in the spaces provided. The marks for each part are shown in brackets [ ]. The total for this worksheet is **20 marks**.

1

Total: 4 marks

An architecture firm sends a large drawing file over the internet to a building contractor. The file is broken down into packets to be transmitted.

(a) Identify the **three** parts of a packet of data. **[3]**

1

2

3

(b) Tick (✓) **one** box to show which part of a packet contains the actual data being sent. **[1]**

Part of packet	Tick (✓) one
Packet header	
Payload	
Trailer	

2

Total: 3 marks

(a) The packet header contains **three** items of information. Identify the **three** items. **[3]**

1

2

3

3 Total: 4 marks

The building contractor's computer receives all the packets of the drawing file.

(a) Explain why each packet header contains a packet number. **[2]**

(b) Explain why each packet header contains the destination address. **[2]**

4 Total: 6 marks

(a) The architecture firm's drawing file is sent to the building contractor using packet switching. Describe how the file is sent and received. **[6]**

5 Total: 3 marks

(a) Tick (✓) **one** box in each row to show whether each statement about packet switching is true or false. **[3]**

Statement	True (✓)	False (✓)
All the packets of one file must take the same route		
A router controls the route a packet takes		
The packets are reordered as soon as the first packet arrives		

Total for this worksheet: 20 marks