

Programming Practice (PRP), Coursework Exercise 4 (Part A), Mark Scheme (Abbreviated)

Entry	Marks Available
At least four classes (NetworkDevice , Packet , Channel and Network)	4 marks
Fields: address , channel and key (NetworkDevice); number and traffic (Channel); source address and destination address (Packet); map between device and channel (Network)	8 marks
Fields are private and protected. Public fields are final and static	1 mark
Methods are used to access fields. Protected fields are not accessed via the object. There is no method to get the connected channel from NetworkDevice .	1 mark
A constructor that sets the address in NetworkDevice	1 mark
A constructor that sets the source and destination addresses in Packet	1 mark
Client and AccessPoint extend NetworkDevice and HandshakePacket extends Packet	1 mark
Fields: Connected access point (Client); Authorised clients (AccessPoint); Key (HandshakePacket)	1 mark
Creating Client and AccessPoint objects	1 mark
A method for adding an AccessPoint to a Network	1 mark
Sending a handshake packet from a Client to the AccessPoint	1 mark
Reading the handshake packet sent from the Client , and sending a packet back from the AccessPoint to the Client	1 mark
Reading the handshake packet sent from the AccessPoint to the Client	1 mark
Performing separate actions for both a successful and an unsuccessful handshake	1 mark
Normal Client communication activity	1 mark
Normal AccessPoint communication activity	1 mark
Network activity	1 mark
Clearing channels	1 mark
28 marks total	