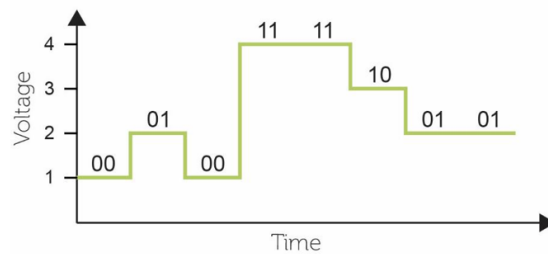


Communications and networking – End of unit test

Q1. Jane tells Tony “Parallel transmission is always faster than serial transmission because you can transfer more bits at once.” Explain the factors Jane may have forgotten that could make her statement untrue. (4 marks)

Q2. With reference to the image below explain why the bit rate and the baud rate are different (2 marks)



Q3. Explain how start and stop bits are used in asynchronous transmission. (3 marks)

Q4. Sometimes when there is a satellite link up on TV the reporter asks a question but the person at the other end of the link doesn't hear the question for several seconds. Describe the problem that is affecting the transmission. (2 marks)

Q5. Ramesh runs a law firm. He is setting up a network for an office of 25 lawyers. Explain 3 benefits to Ramesh of using a star topology instead of a bus network (3 marks)

Q6. Explain the difference between the physical and logical topology of a network. (2 marks)

Q7. Explain why it is more difficult to deal with illegal file sharing in a peer-to-peer network than in a client server network (3 marks)

Q8. Peter and Sally are both connected to the same wireless access point, but they are not in the same room. Neither Peter nor Sally, nor their devices, knows the other is connected to the same wireless access point. Explain the problem that could occur if they both try to transmit data at the same time. (4 marks)

Q9. Raoule would like to set up a wireless network in his home so he and his family can connect to the internet with their various personal devices. What hardware will be necessary for him to set up this network? (2 marks)

Q10. Raoule has heard that having a wireless network can leave you vulnerable to hackers. Explain two steps he can take to make his wireless network more secure (4 marks)

Q11. Explain what a WebSocket protocol is and when it may be used (2 marks)

Q12. Explain the advantages JSON has over XML for transferring data (3 marks)

Q13. What are the 4 fundamental operations of a database performed by a web CRUD application? (4 marks)

Q14. Explain what a restful API is and the benefit of having a restful API. (2 marks)

Q15. Describe the result of the HTTP request DELETE <http://solarsystem.com/Planets/Jupiter> (2 marks)
