

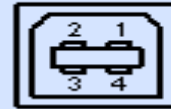
## Universal Serial Bus Tutorial

1) Identify the following USB connector types and where they are used?



i) \_\_\_\_\_

usage-



ii) \_\_\_\_\_

usage-

2)

i) What is the use of pull up resistors in USB cables?

ii) How does a full speed and low speed device use the pull up register?

3) What is the purpose of an endpoint zero and why is it so important?

4)

01010001	11010010	11111111	1010	01001	EOP
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i) What type of packet is represented above? Explain how you came with the conclusion

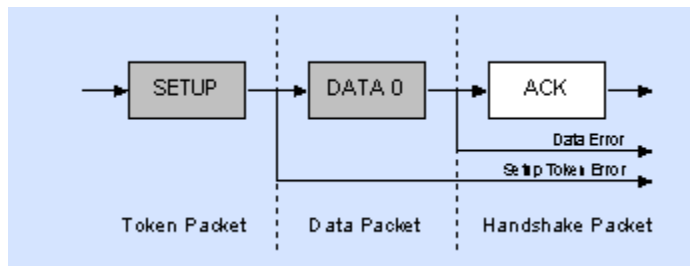
ii) What is the maximum number of devices supported by USB?

iii) Based on the packet structure is this High speed or a low speed device?

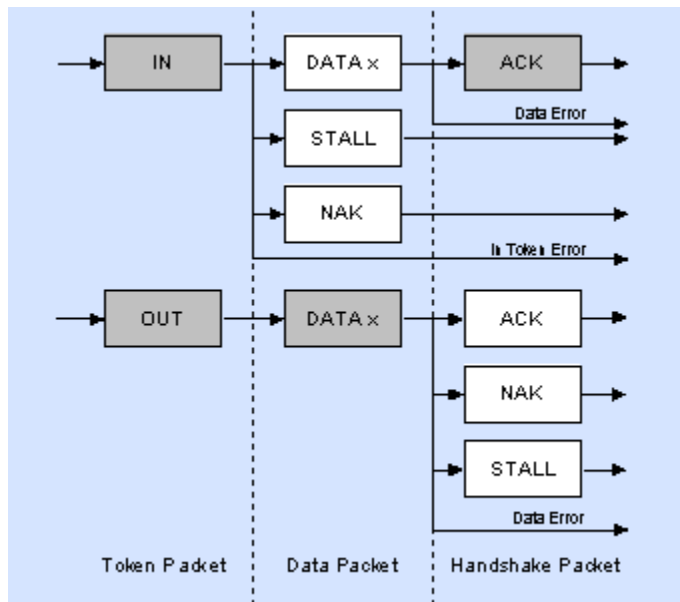
5) Why are there no retries of sending packets in Isochronous transfers?

6) Below are three stages of control transfers. Identify them and describe the process of each of them?

i)



ii)



iii)

