**#11.7 “How many PCI-Express lanes are required to support a 10gb per second Ethernet card?”**

Answer: PCI Express x4 (4 LANE) are required to support Ethernet card of 10gb per second data rate.

**#11.5 “ As described in the text, the PCI-Express bus consists of thirty-two “lanes“. As of January 2009, each lanes is capable of the maximum data rate of 500 MB per second. Lanes are allocated to a device 1,2,3,8,16 , or 32 lanes at a time.**

**Assume that a PCI-Express bus is to be connected to a high-definition video card that is supporting a 1920 x 1080 true color (3 bytes per pixel) progressive scan monitor with a refresh rate of 60 frames per second. How many lanes will this video card require to support the monitor at full capability?”**

Answer: The video card requires 6 lanes to support the monitor at full capability.