Computer Organization and Design (4th) by Hennessy, Patterson Chapter 6.1, Problem 1E

Step 1

a) Video Game device:

Device	Behavior	Partner
Controller	Input	Human
Monitor	Output	Human
CDROM	Storage	Machine

Step 2

b) Handheld GPS:

Device	Behavior	partner
Keypad	Input	Human
Display	Output	Human
Satellite Interface	Input	Machine
Computer Interface	I/O	Machine

Computer Organization and Design (4th) by Hennessy, Patterson Chapter 6.1, Problem 2E

Step 1

a) Video Game device:

Device	Data rate	
Controller	0.0038 Mbit/sec	
Monitor	800–8000 Mbit/sec	
CDROM	88–220 Mbit/sec	

Step 2

b) Handheld GPS:

Device	Data rate	
Keypad	0.0001 Mbit/sec	
Display	800 Mbit/sec	
Satellite Interface	10 Mbit/sec	
Computer Interface	400-800 Mbit/sec	

Computer Organization and Design (4th) by Hennessy, Patterson Chapter 6.1, Problem 3E

Step 1

a) Video Game:

Devices	Data rate/Operation rate	
Monitor	Data rate	
Controller	Operation rate	
CD-ROM	Data rate	

Step 2

b) Handheld GPS:

Devices	Data rate/Operation rate
Keypad	Operation rate
Display	Data rate
Computer Interface	Data rate