EE463 1 1

Operating Systems

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Hw 1:

Q 1 :-

a) 1- Privacy , 2- Accountability

b) Yes, if we seperate OS such that resources are handled seperate

Q 2 :-

a) memory , CPU , Storage

b) " , " , Network

c) " , " , Power consumption

Q 3 :-

A Trap is generated by User while Interrupt " " " Hardware

Q 4 :-

a) Commands are sent from CPU to device by registers where appropriate action is taken

b) The device write to register or generate interrupt, which CPU monitors

c) CPU and Device compete for cycles on memory bus, where memory controller allocate resources with bus cycles, such that CPU will run slower when DMA is active.

Q 5 :-

$$B(5) = \int_0^5 [P(t) - C(t)]\,dt$$

Using Calculator

$$\left[\frac{5}{4} + 15 + \frac{5}{4}\right] - \left[\frac{4}{5} + \frac{24}{5} + \frac{4}{5}\right]$$

$$= 11.1 \text{ KB Buffer size}$$

Q 6 :-

CPU should keep track of mem locations and limit access by use of bounded registers

Q 7 :-

* Creating & Deleting files
* " " " directories
* Supporting Primitives for manipulation of files and directories
* Mapping files onto mass Storage
* Backing up files on Stable "

Q 8 :-

Advantage: is each device can be accesed as if its a file

disadvantage: ?

Q 9 :-

Shared memory & Message Passing Models

M-Pass : good for small data
bad in terms of speed

S-mem : good in " " speed
bad " " of Synchronization

Q 10 :-

	Android	iOS
Open Source	Yes	No
Kernel	Linux	Linux
Layer Stack Similar	Yes	Yes
	Hardware Abstraction	