1. If one or more devices use a common set of wires to communicate with the computer system, the connection is called \_\_\_\_\_\_  
a) CPU  
b) Monitor  
c) Wirefull  
d) Bus

Answer: d  
Explanation: None.

2. A \_\_\_\_ a set of wires and a rigidly defined protocol that specifies a set of messages that can be sent on the wires.  
a) port  
b) node  
c) bus  
d) none of the mentioned

Answer: c  
Explanation: None.

3. When device A has a cable that plugs into device B, and device B has a cable that plugs into device C and device C plugs into a port on the computer, this arrangement is called a \_\_\_\_\_\_\_\_\_  
a) port  
b) daisy chain  
c) bus  
d) cable

Answer: b  
Explanation: None.

4. The \_\_\_\_\_\_\_\_\_ present a uniform device-access interface to the I/O subsystem, much as system calls provide a standard interface between the application and the operating system.  
a) Devices  
b) Buses  
c) Device drivers  
d) I/O systems

Answer: c  
Explanation: None.

5. A \_\_\_\_\_\_\_\_ is a collection of electronics that can operate a port, a bus, or a device.  
a) controller  
b) driver  
c) host  
d) bus

Answer: a  
Explanation: None.

6. An I/O port typically consists of four registers status, control, \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_ registers.  
a) system in, system out  
b) data in, data out  
c) flow in, flow out  
d) input, output

Answer: b  
Explanation: None.

7. The \_\_\_\_\_\_ register is read by the host to get input.  
a) flow in  
b) flow out  
c) data in  
d) data out

Answer: c  
Explanation: None.

8. The \_\_\_\_\_\_ register is written by the host to send output.  
a) status  
b) control  
c) data in  
d) data out

Answer: d  
Explanation: None.

9. The hardware mechanism that allows a device to notify the CPU is called \_\_\_\_\_\_\_  
a) polling  
b) interrupt  
c) driver  
d) controlling

Answer: b  
Explanation: None.

10. The CPU hardware has a wire called \_\_\_\_\_\_\_\_\_\_ that the CPU senses after executing every instruction.  
a) interrupt request line  
b) interrupt bus  
c) interrupt receive line  
d) interrupt sense line

Answer: a  
Explanation: None.

11. The \_\_\_\_\_\_\_\_\_ determines the cause of the interrupt, performs the necessary processing and executes a return from the interrupt instruction to return the CPU to the execution state prior to the interrupt.  
a) interrupt request line  
b) device driver  
c) interrupt handler  
d) all of the mentioned

Answer: c  
Explanation: None.

12. In general the two interrupt request lines are \_\_\_\_\_\_\_\_\_\_\_\_  
a) maskable & non maskable interrupts  
b) blocked & non maskable interrupts  
c) maskable & blocked interrupts  
d) none of the mentioned

Answer: a  
Explanation: None.

13. The interrupt vector contains \_\_\_\_\_\_\_\_\_\_\_\_  
a) the interrupts  
b) the memory addresses of specialized interrupt handlers  
c) the identifiers of interrupts  
d) the device addresses

Answer: b  
Explanation: None.

14. Division by zero, accessing a protected or non existent memory address, or attempting to execute a privileged instruction from user mode are all categorized as \_\_\_\_\_\_\_\_  
a) errors  
b) exceptions  
c) interrupt handlers  
d) all of the mentioned

Answer: b  
Explanation: None.

15. For large data transfers, \_\_\_\_\_\_\_\_\_ is used.  
a) dma  
b) programmed I/O  
c) controller register  
d) none of the mentioned

Answer: a  
Explanation: None.

16. A character stream device transfers \_\_\_\_\_\_\_\_\_\_\_\_  
a) bytes one by one  
b) block of bytes as a unit  
c) with unpredictable response times  
d) none of the mentioned

Answer: a  
Explanation: None.

17. A block device transfers \_\_\_\_\_\_\_\_\_\_\_\_  
a) bytes one by one  
b) block of bytes as a unit  
c) with unpredictable response times  
d) none of the mentioned

Answer: b  
Explanation: None.

18. What is a dedicated device?  
a) opposite to a sharable device  
b) same as a sharable device  
c) can be used concurrently by several processes  
d) none of the mentioned

Answer: a  
Explanation: None.

19. A keyboard is an example of a device that is accessed through a \_\_\_\_\_\_\_\_\_\_ interface.  
a) block stream  
b) set of blocks  
c) character stream  
d) none of the mentioned

Answer: c  
Explanation: None.

20. In polling \_\_\_\_\_\_\_\_\_\_\_\_  
a) busy – wait cycles wait for I/O from device  
b) interrupt handler receives interrupts  
c) interrupt-request line is triggered by I/O device  
d) all of the mentioned

Answer: a  
Explanation: None.

21. A non blocking system call \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
a) halts the execution of the application for an extended time  
b) does not halt the execution of the application  
c) does not block the interrupts  
d) none of the mentioned

Answer: b  
Explanation: None.

22. Buffering is done to \_\_\_\_\_\_\_\_\_\_\_\_  
a) cope with device speed mismatch  
b) cope with device transfer size mismatch  
c) maintain copy semantics  
d) all of the mentioned

Answer: d  
Explanation: None.

23. Caching is \_\_\_\_\_\_\_\_ spooling.  
a) same as  
b) not the same as  
c) all of the mentioned  
d) none of the mentioned

Answer: b  
Explanation: None.

24. Caching \_\_\_\_\_\_\_\_\_\_\_\_  
a) holds a copy of the data  
b) is fast memory  
c) holds the only copy of the data  
d) holds output for a device

Answer: a  
Explanation: None.

25. Spooling \_\_\_\_\_\_\_\_\_\_\_\_  
a) holds a copy of the data  
b) is fast memory  
c) holds the only copy of the data  
d) holds output for a device

Answer: c  
Explanation: None.

26. The \_\_\_\_\_\_\_\_ keeps state information about the use of I/O components.  
a) CPU  
b) OS  
c) kernel  
d) shell

Answer: c  
Explanation: None.

27. The kernel data structures include \_\_\_\_\_\_\_\_\_\_\_\_  
a) process table  
b) open file table  
c) close file table  
d) all of the mentioned

Answer: b  
Explanation: None.

28. I/O is a \_\_\_\_\_\_\_\_\_ in system performance.  
a) major factor  
b) minor factor  
c) does not matter  
d) none of the mentioned

Answer: a  
Explanation: None.

29. If the number of cycles spent busy – waiting is not excessive, then \_\_\_\_\_\_\_\_\_\_\_\_  
a) interrupt driven I/O is more efficient than programmed I/O  
b) programmed I/O is more efficient than interrupt driven I/O  
c) both programmed and interrupt driven I/O are equally efficient  
d) none of the mentioned

Answer: b  
Explanation: None.