
ISTANBUL ALTINBAS UNIVERSITY



Name, Surname :
Number :
Lecture Code : BT/IT 530 & EBM/ECE 510
Lecture Name : Computer Organisation & Advanced Computer Architecture
Lecturer : Prof. Dr. Hasan Huseyin BALIK
Exam Type : Quiz Midterm Final
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Rules: Only 20/40 must be answered. 2 wrong answers take one correct answer. Duration is 30 minutes

QUESTIONS

		T	F
1	A portion of main memory used as a buffer to hold data temporarily that is to be read out to disk is referred to as a virtual address		F
2	Internal memory capacity is typically expressed in terms of nanos		F
3	The basic function of a computer is to execute programs	T	
4	RAM must be provided with a constant power supply	T	
5	For internal memory, the access time is equal to the number of electrical lines into and out of the memory module		F
6	A data hazard occurs when there is a conflict in the access of an operand location.	T	
7	A set of I/O modules is a key element of a computer system	T	
8	A computer must be able to process, store, move, and control data	T	
9	During a read or write operation, the head rotates while the platter beneath it stays stationary		F
10	A bus that connects major computer components (processor, memory, I/O) is called a system bus	T	
11	The allocation of control information between registers and memory are not considered to be a key design issue.		F
12	There are typically hundreds of sectors per track and they may be either fixed or variable lengths	T	
13	An I/O device is referred to as a control device		F
14	It is not possible to connect I/O controllers directly onto the system bus		F
15	Semiconductor memory comes in packaged chips	T	
16	A sequence of codes or instructions is called memory		F
17	With flash memory the microchip is organized so that a section of memory cells are erased in a single action	T	
18	Changes in computer technology are finally slowing down		F

19	It is possible to improve pipeline performance by automatically rearranging instructions within a program so that branch instructions occur later than actually desired.	T	
20	A control hazard occurs when two or more instructions that are already in the pipeline need the same resource.		F
21	The cache holds recently accessed data.	T	
22	SEC errors can be caused by power supply problems or alpha particles		F
23	The width of a track is double that of the head		F
24	When data are moved over longer distances, to or from a remote device, the process is known as data communications	T	
25	A characteristic of ROM is that it is volatile		F
26	In a volatile memory, information decays naturally or is lost when electrical power is switched off	T	
27	A CPU interconnection is a mechanism that provides for communication among CPU, main memory, and I/O.		F
28	The I/O processor contains logic for performing a communication function between the peripheral and the bus.		F
29	The processor needs to store instructions and data temporarily while an instruction is being executed	T	
30	One increment, or pulse, of a clock is referred to as a clock speed		F
31	The write command is used to activate a peripheral and tell it what to do		F
32	The most common means of computer/user interaction is a keyboard/monitor	T	
33	An increase in clock rate means that individual operations are executed more rapidly	T	
34	Data are transferred to and from the disk in pits		F
35	Flash memory becomes unusable after a certain number of writes.	T	
36	An I/O module must recognize one unique address for each peripheral it controls	T	
37	Murphy's law deals with the potential speedup of a program using multiple processors compared to a single processor		F
38	A typical computer system is equipped with a hierarchy of memory subsystems, some internal to the system and some external	T	
39	Computer systems contain a number of different buses that provide pathways between components at various levels of the computer system hierarchy	T	
40	Cloud service providers use massive high-performance banks of servers to satisfy high-volume, high-transaction-rate applications for a broad spectrum of clients	T	